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A report to the Congress that summarizes and evaluates operations under the act during the third and fourth years of its existence which covers the following:

Title No.
- II. Loans to Students in Institutions of Higher Education.
- III. Financial Assistance for Strengthening Science, Mathematics, and Modern Foreign Language Instruction.
- IV. National Defense Fellowships.

Title No.
- V. Guidance, Counseling and Testing: Identification and Encouragement of Able Students.
- VI. Language Development.
- VII. Research and Experimentation in More Effective Utilization of Television, Radio, Motion Pictures and Related Media for Educational Purposes.
- VIII. Area Vocational Education Programs.
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REPORT ON THE

National Defense Education Act

FISCAL YEARS 1961 AND 1962

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

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REPORT ON THE

National Defense Education Act

FISCAL YEARS

1961 and 1962

A Summary
of Programs Administered by the Office of Education
Under Public Law 85-864

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
ANTHONY J. CELEBREZZE
Secretary

Office of Education
FRANCIS KEPPEL
Commissioner

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Letter of Transmittal

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office of Education
Washington

June 15, 1963

The Honorable the President of the Senate,
The Honorable the Speaker of the House of Representatives.

Sirs:

I have the honor to transmit herewith my report to the Congress, as provided by Section 1001(c) of Public Law 85-864, on operations under the National Defense Education Act of 1958 for the fiscal years ending June 30, 1961, and June 30, 1962.

The passage of the Act manifested the recognition by the Congress of the interdependence of national security and educational excellence. The Act has now been in operation for more than four years. During that time the funds expended under its various titles have been an investment not only in the national security and welfare, but also in individual human beings. Directly or indirectly, the programs supported by these funds have strengthened the substance and improved the quality of education in almost every American community.

This report summarizes and evaluates operations under the Act during the third and fourth years of its existence.

Sincerely yours,

Francis Keppel

FRANCIS KEPPEL

United States Commissioner of Education.

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Introduction

THE NATIONAL DEFENSE EDUCATION ACT of 1958 has now been in operation for 4 years, during which time the U.S. Office of Education has been responsible for administration at the Federal level of all titles except title IX which established a special service in the National Science Foundation. By extending the partnership between the Federal Government, the States, and local communities the Office of Education has marshaled national resources in a unified effort to achieve national defense goals.

The NDEA is based on the premise that every American should have the opportunity to develop his skills and competencies to the fullest extent and that only in this way can the Nation develop the trained manpower and insure the leadership essential for the preservation of democracy. During the first 4 years, programs authorized by the Act have affected all levels of education, from the elementary schools through the graduate schools. They have strengthened the teaching of science, mathematics, foreign languages, and vocational education; increased counseling and guidance activities; encouraged educational research and experimentation; provided assistance to worthy college students through student loans and fellowships; and fostered speedier and more effective reporting of educational statistics.

Originally authorized for 4 years, in 1961 the NDEA was extended by the Congress for 2 additional years. Two amendments to the original act have also been legislated. The first, P.L. 87–400 enacted in 1961, permits a college student under the Student Loan Program to borrow up to $1,000 in a single academic year rather than up to $1,000 during a fiscal year, thus benefiting students enrolled in accelerated programs. The second, P.L. 87–835 enacted in October 1962, repealed the controversial non-Communist affidavit, thereby eliminating a provision which had been objectionable to the academic community.

Providing Financial Assistance to Students

The Student Loan Program (title II of the act) has made a concrete attack on the national waste of talent. A survey of borrowers under the program in fiscal year 1961 indicated that 9 out of 10 depended on the availability of these loans to enter or continue in college. During the first 4 years of the program, more than a third of a million students have used title II loans to further their education. About two-thirds of the loans have been made to students either preparing to teach in elementary or secondary schools or possessing superior academic ability or preparation in science, mathematics, engineering, or modern foreign languages.

The number of institutions taking part in the program has risen steadily, until in 1962 it included three-quarters of the colleges and universities in the Nation and about nine-tenths of the total full-time student enrollment.

Identifying Talent

But the financial obstacle is only one dimension of the problem of wasted talent. Many students remained unaware of their own abilities and potentialities and of the educational and occupational or professional opportunities open to them, and either did not continue their education beyond high school or did not even finish school. Such wastage is especially costly among talented students. The expanded guidance, counseling, and testing programs under title V have made possible a great increase in the total number of school counselors and have placed a new emphasis on the identification and encouragement of talent. During 1962–63 nearly three-quarters of the students in secondary schools will have been enrolled in schools with counseling and guidance programs approved under title V State plans.

The results of such programs are observable not only in instances of reduced dropout rate and in the higher percentage of students continuing their education beyond high school, but also in many instances of curriculum changes, accelerated classes, and regroupings of students to meet individual needs revealed by the programs.

Also under title V a program of training institutes for secondary school counselors or secondary teachers preparing to be counselors in secondary schools has been conducted to supplement existing programs of counselor education. In general, its aim has been to provide high level training in counseling to enable enrollees to meet certification requirements and particularly to equip counselors to work with academically able students. Since the start of operations under this title the number of secondary counselors has more than doubled.

Strengthening Instruction

While the Student Loan Program has provided incentives to students to take up the profession of teaching, and has helped foster an increase in college-educated scientists, mathematicians, and linguists, the title III program has attacked the problem of wasted talent from a different angle—that of strengthening school instruction in these subjects by providing funds for equipment and minor remodeling of classrooms and for State supervisory and consultative services, particularly in the revision of methodology and course content. At the end of the first 4 years of operation, there is much evidence of increased numbers of pupils studying science, mathematics, and modern foreign languages at rates exceeding the growth rate of school population. There is also evidence that improvement in the courses covered by title III is stimulating improvement in teaching and is modernizing curriculums in subject areas outside the range of this program. One State report noted, "We have moved forward in science instruction 10 years since title III was initiated"; another described the numerical growth of foreign language laboratories as "the most spectacular feat of NDEA." In mathematics, the effect of the improved teaching at the high school level is already apparent in the improved scholastic record of some college freshmen in this subject.

Extending Technical Training Opportunities

For those students who for one reason or another will not go on to professional training at college, the area vocational education program under title VIII has encouraged the provision of 2-year preparatory courses at the high school or post-high school level as an integral part of the general vocational education program administered by the U.S. Office of Education. These courses have kept pace with the changing technologies; in one field 600 students were placed in jobs even before they had graduated from their courses. At the same time extension programs have enabled adults working in technical occupations to train or retrain themselves and thus to hold their own in changing conditions.

This program serves two purposes: To correct geographic imbalances by extending vocational and technical training to areas inadequately served by previously existing programs, and to meet national needs by providing funds for the training of skilled technicians to support the work of engineers and scientists. States have overmatched the Federal contributions under this title by nearly one-third and have been stimulated by the support given for salaries and equipment to undertake the school building necessary to house these programs. In the 4 years of operation course enrollments have tripled and participating institutions have increased to two-and-a-half times their original total. Fruitful cooperation has been effected between State and local vocational educators, State and local employment service officers, and local industries.

Promoting Worldwide Language Competencies

Language instruction, where it was offered in 1958, was for the most part confined to French and Spanish. In the changed circumstances of the United States and the world following the

Second World War, government, business, and industry found themselves gravely handicapped by this shortage of language talent. The language development program (title VI) has attacked this problem through four interlocking programs.

(1) A research and studies program has conducted surveys to determine national gaps and needs in language instruction; developed new and improved methods and techniques of instruction, proficiency tests, and instructional materials for the languages commonly taught in U.S. schools and colleges and for those other languages, spoken by roughly three-quarters of the world's population, which had been neglected in American education and for which in many instances even dictionaries and grammars were lacking. The new methods and materials of instruction developed are profoundly influencing language teaching at all levels.

(2) For the more commonly taught languages, the National Defense Language Institutes have during these first 4 years provided training for nearly one-fifth of the Nation's elementary and secondary school teachers. This training has included not only better understanding of the spoken and written language and of the related culture, but also training and experience in the use of the new teaching methods and instructional materials, with particular emphasis on the audio-visual method.

(3) For the study of the neglected languages and of the institutions, history, and culture of their related areas, support has been given to language and area centers established in institutions of higher education. Centers have been supported in Slavic, Near and Middle Eastern, Far Eastern, East and South Asian, and African language and area studies. Under the impetus of the Alliance for Progress, Latin American centers were established for the study of Spanish and Portuguese.

(4) To meet the language needs of Government and the Nation for persons proficient in the neglected languages and areas, and of colleges and universities for teachers in this field, modern foreign language fellowships have been available for graduate students of these languages. More than two-thirds of these fellows study at the language and area centers, the majority in preparation for university teaching.

Supporting Graduate Education

But the need for more well-trained university teachers was not confined to modern foreign languages; it extended to graduate education in general. Needs generated by mounting student enrollments and normal faculty turnover through death, retirement, or resignation promised to far outstrip the already insufficient supply of teachers with doctoral degrees. The graduate fellowship program (title IV), by making the majority of its awards to the newer, smaller schools, has sought to correct the geographic imbalance under which graduate education had flourished predominantly in institutions located on the Eastern Seaboard, the West Coast, and in the Midwest. At the same time, while keeping in view the national need for instruction in proposed fields, it has confined its awards to new or expanded programs. Through this program, some States now for the first time find themselves possessed of an institution or institutions offering training for the doctorate. Nearly three-quarters of the students who have so far earned the doctorate under this program have entered college teaching.

Exploring the Role of the New Media

As the impact of the new technology on education grows, new communications media and teaching aids are influencing school curriculums and providing means to lighten the teaching load and alleviate the teacher shortage. Title VII has provided funds for the investigation of the optimum use—and the limitations—of these new educational media as supplementary teaching aids and for the dissemination to schools and colleges of the findings of this research and experimentation. Research into the potential uses of new media in teaching has explored and demonstrated the contributions that audiovisual materials, TV, and other media can make to classroom and teacher education, and the special opportunities they can provide to gifted students. During fiscal years 1961 and 1962, major emphasis shifted from TV to programed self-instructional media and teaching machines.

In an area at once so new and so rapidly developing, it is a service of the first importance to disseminate information and to make accessible the new materials and research information developed by title VII activities and by nonfederally supported research. Not surprisingly, this service has involved a number of important "firsts," including the creation of the country's first comprehensive index of educational media, of the first comprehensive catalog of programed instructional materials available for 1962–63, of a pilot media research information service (capable of producing annotated bibliographies through machine information storage and retrieval), and of three pilot TV materials libraries. These activities have been over and above the dissemination of a great quantity of other information, including, for example, a comprehensive report on educational TV, a survey of new TV channels needed for complete nationwide educational coverage, demonstrations of teacher education by TV, workshop demonstrations of inservice teacher training in the use of the new media, and a major film series on communications theory and the educational media prepared under a title VII contract.

Seeking Current Educational Data

When the President's Committee on Education Beyond the High School commented on "the astounding lack of accurate, consistent, and up-to-date facts" available about U.S. education, it drew attention to a grave and fundamental handicap on educational planning, research, and advisory work at all levels. The goal of title X is the establishment of a national cooperative system of educational data, based on speedy and precise reporting and machine processing of basic items. The key to any such operation is the State. But before this goal could even be approached, indispensable groundwork had to be laid by the adoption of standardized items, educational terminology, and definitions, and the strengthening of State and local data systems to provide accurate, complete, and timely information, couched in comparable terms.

All but a handful of States and territories were participating in this program by 1962 and were engaged in improving their methods of recording and reporting statistics and developing a complete data flow system covering the collection, verification, processing, storage, and retrieval of statistical information.

Examining the Federal Role

Since World War II the partnership between institutions of higher education and the Federal Government in the accomplishment of national objectives has greatly intensified until today 15 different Federal departments and agencies conduct major programs in institutions of higher education. The U.S. Office of Education conducted a survey under title X (section 1001(d)) to obtain comprehensive information on the Federal involvement in higher education and to submit recommendations for future policies and procedures. A summary of the survey entitled "A Survey of Federal Programs in Higher Education" was published in October 1962; the full report is scheduled to appear in the spring of 1963.

Achievements and Limitations Under NDEA

Achievements under the act in the first 4 years of its operation are impressive. But much still remains to be done before many of the serious educational deficiencies of the Nation are met. Certainly, because of NDEA more young people now have an opportunity to attend college; but thousands are still without financial resources to do so. Progress has been made in meeting the instructional equipment needs of the elementary and secondary schools in science, mathematics, and modern foreign languages, but the laboratories and classrooms for these and other subjects are still far from adequate. The availability of fellowships is encouraging prospective teachers to stay in graduate work; but only one of every five applicants for a fellowship can be accommodated. Some guidance services are available in the majority of secondary schools; but the need for trained counselors is still critical. Rapid progress has been made in training foreign language teachers and in developing materials for teaching foreign languages; but few of the Nation's schools have committed themselves to making foreign language competencies an integral part of the curriculum. Technical breakthroughs have been made in research on new teaching aids; but the results of this research are yet to be incorporated into classroom procedures. Training of skilled workers has been accelerated; but the need for their skills far outstrips the supply. States have begun to codify and use modern data processing equipment; but educational information still does not flow at a rate consistent with the needs of the modern world.

At the end of 4 years of operation it can be said with confidence that the National Defense Education Act has laid substantial foundations for the improvement of many areas of the Nation's educational system. But it is still true that, as stated in 1958, in the first title of the act, "We must increase our efforts to identify and educate more of the talent of our Nation."

Title II. Loans to Students in Institutions of Higher Education

Authorization:

Fiscal 1961: $82,500,000, plus this year's share of the $25 million authorized over a 4-year period for loans to help participating institutions finance their share of the loan funds.

Fiscal 1962: $90,000,000, plus this year's share of the $25 million.

Appropriation:

Fiscal 1961: $58,430,000, including $700,000 for loans to institutions.

Fiscal 1962. $75,145,000, including $1.3 million for loans to institutions.

Basis: Appropriations are allotted to the States in the proportion that the full-time college enrollment within each State bears to the total full-time college enrollment in the Nation, and are allocated, upon application, among institutions within the State according to the percentages of the State allotment which their approved requests represent.

Provisions: Undergraduate and graduate students enrolled full time, in good academic standing, and in need of financial assistance and students accepted for enrollment may borrow up to $1,000 per academic year or a total of $5,000 for all years. In the selection of students to receive loans, participating institutions must give special consideration to (*a*) students with a superior academic background who express a desire to teach in elementary or secondary schools and (*b*) students whose academic background indicates superior capacity for or preparation in science, mathematics, engineering, or a modern foreign language.

The 10-year repayment period begins 1 year after the student ceases to pursue full-time college studies. The interest rate is 3 percent a year, except that a borrower at his own option may accelerate the repayment of the whole or any part of such loan.

The liability to repay a loan is canceled if the borrower dies or becomes permanently and totally disabled, as determined in accordance with regulations of the Commissioner.

A borrower who becomes a full-time teacher in a public elementary or secondary school is "forgiven" 10 percent of the outstanding balance of the loan on the first day of teaching (plus interest) for each academic year of service, up to a maximum of 50 percent of the loan.

The institution must have in its loan fund at all times at least $1 for each $9 of Federal funds.

The Federal contribution to an institution's loan fund cannot exceed $250,000 a year.

Under certain conditions an institution may obtain a Federal loan, which shall mature in not to exceed 15 years, to help finance its share of its student loan fund.

THROUGH THE NATIONAL DEFENSE STUDENT LOAN PROGRAM, 151,068 student borrowers received loans totaling $71 million in fiscal year 1961 funds, and 186,465 students borrowed $89.1 million in fiscal year 1962. This brought the total number of student borrowers in the first 4 years of the program to nearly 363,500 and the total amount loaned during this period to $219.7 million.

The Federal loan allocation in fiscal year 1961 was $57.4 million. As required by the act, participating institutions contributed to their loan funds a total of $6.4 million of their own money, of which about $490,000 was provided by Federal loans to 58 institutions to enable them to contribute their full share to the loan fund. In addition, institutions carried over to fiscal year 1961, $19.6 million in loan commitments to entering freshmen and other students, thus bringing the student loan fund for that year to a total of $83.44 million.

In fiscal year 1962, the Federal contribution to the loan fund was $73.85 million, and the institutional contribution was $8.2 million, of which $672,000 was loaned by the Federal Government to 87 institutions to help them finance their share of the loan funds. These funds, plus $14.2 million carried over from the previous year, brought the total loan fund for fiscal year 1962 to $96.25 million.

An important development has been the increase in the number of colleges and universities participating in the program—1,181 in fiscal year 1959, 1,357 in 1960, 1,410 in 1961, and 1,452 in 1962. During this last year nearly 90 percent of all full-time college students in the United States were enrolled in these institutions.

Of the 1,410 colleges and universities participating in the program in fiscal year 1961, 884 were private and 526 public. In fiscal year 1962, of the 1,452 participating institutions, 906 were private and 546 public. The number of participating institutions, by type, is shown below:

Type of institution	*Number* *FY 1961*	 *FY 1962*
Liberal arts colleges	656	663
Junior colleges	249	270
Teachers colleges	184	185
Universities	153	154
Theological colleges	46	53
Professional colleges	46	48
Technological colleges	33	35
Art and music colleges	27	29
Semiprofessional colleges	9	10
Technical institutes	7	5

During these 2 years, 11 colleges and universities declined to participate in the Student Loan Program because of the disclaimer affidavit provision of the act,[1] and 21 colleges and universities withdrew from the program for the same reason. Sixty-three institutions officially protested the disclaimer affidavit, but continued to participate in the program.

The average loan for fiscal year 1961 was $470; for fiscal year 1962, $478. A greater number of loans, more than 40,000, were made to entering freshmen in fiscal year 1961 than to students at any other academic level, evidence of the desire of participating institutions to encourage capable high school seniors to make the transition to college. Undergraduates received 91 percent of all loans that year and graduate students 9 percent. Of the total borrowers, 63 percent were men and 37 percent women.

Again in 1962, the greatest number of loans, nearly 50,000, went to entering freshmen. Undergraduates received 92 percent of all loans for the year, with graduate students receiving 8 percent. Sixty percent of the borrowers were men, and 40 percent women.

The act provides for partial cancellation of loan principal for those who actually enter the teaching service. From the start of the program to the end of fiscal year 1961, more than 4,000 public school teachers had applied for cancellations totaling $233,000, and in fiscal year 1962 an additional 12,865 teachers were granted $1,072,000 in cancellations. These totals represent together about 30 percent of former borrowers now making loan repayments.

The amount repaid by June 30, 1962, was more than twice the amount actually due. These accelerated repayments show the desire of student borrowers to pay off their loans promptly. This nationwide experience is consistent with the experience of those colleges and universities which had long-term loan programs operating prior to 1959.

In keeping with the intention of the act, most (67 percent) of the individual loans have been advanced to students who were either preparing to teach in elementary or secondary schools or who had superior academic ability or preparation in science, mathematics, engineering, or modern foreign languages. In fiscal year 1961, the applications of more than 103,000 students for loans totaling $48.5 million, received special consideration on these grounds. Of the group, student borrowers in science numbered 14,877; in engineering, 12,334; in mathematics, 4,499; and in modern foreign languages, 2,312. Prospective teachers receiving special consideration totaled 69,552.

In 1962, nearly 130,000 students received special consideration, for loans totaling $61.8 million. Of these, student borrowers in science numbered 18,372; in engineering, 14,464; in mathematics, 5,810; and in modern foreign languages, 2,885. Prospective teachers receiving special consideration in 1962 totaled 88,269.

Borrowers in medical and dental programs[2] totaled 2,972 in 1961, and 5,094 in 1962.

Results of a survey of students who borrowed in fiscal year 1961 showed that 9 out of 10 depended on the availability of a student loan to start or continue in college. This survey also provided evidence that the participating institutions care-

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[1] Every applicant for a National Defense Student Loan was required, under the terms of the original act, to sign an oath of allegiance, and also an affidavit stating that he "does not believe in, and is not a member of and does not support any organization that believes in or teaches, the overthrow of the U.S. Government by force or violence or by any illegal or unconstitutional methods."

[2] Student borrowers enrolled in A.M.A.- or A.D.A.-approved programs leading to the M.D. or D.D.S. degree.

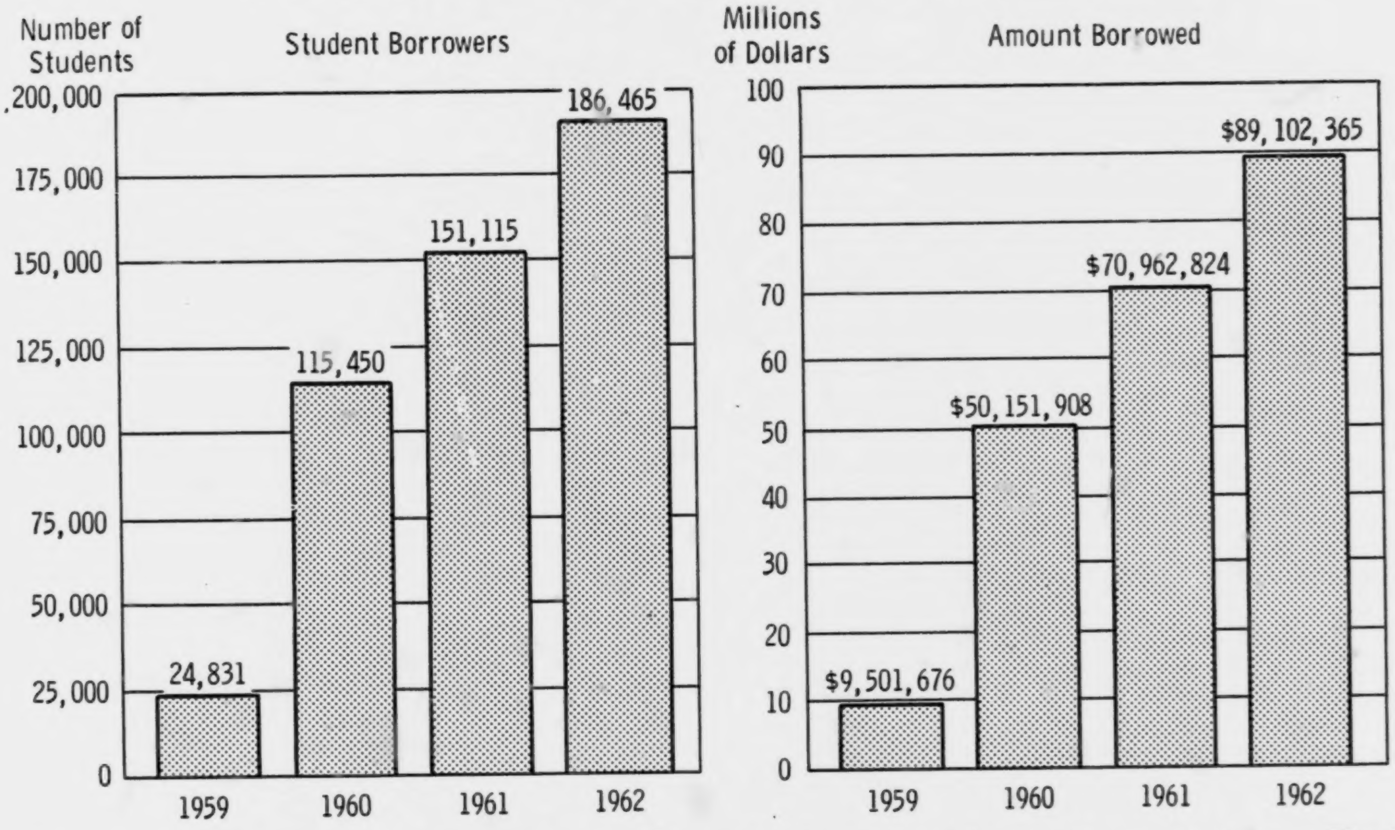

Figure 1.—Title II (Student Loan Program) Number of student borrowers and amount borrowed, by year: Fiscal years 1959–62.

fully screened loan applications from the standpoint of financial need. For example, the survey showed that:

- Two out of every 5 borrowers came from families whose annual incomes were $4,000 or less, and 5 out of 7 from families whose incomes were $6,000 or less.
- Eight out of every 10 borrowers obtained at least one-half the money for their college expenses from sources outside the family (such as loans, scholarships, and part-time work); 3 out of every 10 were financing all their expenses in this manner.
- Seventy-four percent of the borrowers had brothers and sisters of college age or younger.

The use of student loans as a means of enabling capable students who need financial help to obtain a college education is winning greater acceptance than ever before. The firm establishment of effective, long-term student loan programs at nearly 75 percent of the Nation's colleges and universities is a recent and significant development in the field of higher education. Some 700 of the 1,410 institutions participating in the Student Loan Program in fiscal year 1961 had never included long-term loans as a basic part of their student financial aid programs prior to NDEA, while many institutions which had student loan programs before this time had used them only for short-term or emergency purposes.

Of the 1,410 colleges and universities participating in the loan program in fiscal year 1961, 34 requested more than $250,000, the statutory limit for any one institution. The total amount requested by these institutions over this limit was $3,748,640. A similar situation arose in fiscal year 1962, when 102 institutions requested a total of $13,200,000 over the $250,000 ceiling.

Many colleges have developed a combined approach to student financial aid, utilizing loans, scholarships, and employment opportunities, and it is expected that this approach will come into wider use. Such a system helps the student avoid a heavy burden of debt, while enabling the institution to broaden its total financial aid program on an equitable basis.

Title III. Financial Assistance for Strengthening Science, Mathematics, and Modern Foreign Language Instruction

Annual authorization for equipment, materials, and minor remodeling: $70 million. From each appropriation, not more than 2 percent may be reserved for allocation to territories and possessions according to their respective needs and 12 percent is reserved for loans to nonprofit private schools.

Annual authorization for State supervisory and related services and administration of State plans: $5 million. From each appropriation for supervisory services, not more than 2 percent may be reserved for territories and possessions.

THE SCIENTIFIC and technological revolution has challenged the schools to produce a corresponding revolution in classroom instruction. More knowledge and know-how must be communicated to more pupils more effectively, despite a chronic teacher shortage. In the science and mathematics courses, content and method must be continually updated to reflect the changes caused by research breakthroughs, automation, and space exploration. New concepts must be introduced to more students earlier in their school life. At the same time, students must be taught greater language competencies to prepare them for world responsibilities. These changes require, among other things, modern laboratory equipment, audiovisual aids, and up-to-date instructional materials and methods to render teaching more effective and to conserve teacher time.

Taken together, reports and surveys by State and by private school officials gave a consistent picture of progress during fiscal years 1961 and 1962 toward meeting these challenges and accomplishing the goals of title III. In the subject areas of science, mathematics, and modern foreign languages, title III funds were used to equip and remodel classrooms for improved instruction, to revise methodology and course content, and to raise the number and quality of courses offered.

A. Acquisition of Equipment and Minor Remodeling

Grants to States

Authorization:

Fiscal 1961: $61,600,000 (including payments to territories)
Fiscal 1962: $61,600,000 (including payments to territories)

Appropriation:

Fiscal 1961: $47,520,000
Fiscal 1962: $47,520,000

Basis: Matching basis 50-50 by State and/or local funds.

Provisions: Funds are provided for payments to the States and Territories to help finance local projects to improve instruction in science, mathematics, and modern foreign languages through purchase of laboratory and other special equipment, including audiovisual materials and equipment and printed materials (other than textbooks), and for minor remodeling of existing classrooms for the use of the equipment acquired.

An amount of 2 percent is reserved for territories and possessions and is allotted among them according to their needs. A State's share or allotment is based on a formula reflecting relative school-age population and relative income per school-age child within the State.

Federal payments to the State must be matched dollar for dollar by State and/or local funds. A State's allotment remains available for 2 years.

To receive Federal funds, a State must have an approved State plan which sets forth:

1. A program under which funds paid to it will be expended solely for State-approved local elementary and/or secondary school projects for the acquisition of laboratory or other special equipment and materials to strengthen instruction in science, mathematics, and modern foreign languages, and for minor remodeling of laboratory or other space used for such equipment and materials.
2. The criteria for determining the priority of such projects.
3. A provision affording opportunity for a hearing before the State education agency to any applicant for a project.
4. A provision for the establishment of standards for laboratory and other special equipment acquired with assistance under this title.
5. A program of State supervisory and related services designed to strengthen instruction in science, mathematics, and modern foreign languages.
6. A provision for administration of the State plan, stating that the education agency will be the sole agency for administering the plan, for necessary reports to the U.S. Commissioner of Education, and for proper fiscal control and fund accounting.

FORTY-NINE STATES, the District of Columbia, and the three territories received $29.6 million in Federal funds for the acquisition of equipment and minor remodeling in fiscal year 1961. In fiscal 1962, 48 States, the District of Columbia, and the three territories received $44.1 million. (See tables 4 and 5.) By June 30, 1962, the U.S. Office of Education had paid a net total of $140.4 million for these purposes to the States, the District of Columbia, and the Territories.[1]

To receive partial reimbursement for proposed expenditure in one of the specified subject-matter fields, a local school agency submits a project to the State education agency for approval. The project specifies how funds will be used to strengthen instruction through purchase of equipment and materials and minor remodeling of classrooms or laboratories. The total estimated cost of approved projects reported by a State will exceed the annual payments in any given year since amounts reported include matching funds and since States do not always reimburse for all projects approved in a given year.

A summary of State-approved projects, their estimated cost and their subject fields, for fiscal 1961 and 1962 and for the 4-year period 1959–62, follows (all dollar amounts are in millions):

Item	Fiscal 1961	Fiscal 1962	Total of 4 fiscal years 1959–62
Number of approved projects	55,392	58,810	180,631
Estimated cost of approved projects	$94.8	$99.7	$323.6
Estimated cost of science projects	$69.5	$72.1	$238.9
Percent of total cost	73.3	72.3	73.8
Estimated cost of mathematics projects	$8.0	$9.0	$27.7
Percent of total cost	8.4	9.0	8.6
Estimated cost of modern foreign language projects	$17.3	$18.6	$57.0
Percent of total cost	18.3	18.7	17.6
Percent of estimated costs for elementary schools	17.2	18.7	17.4
Percent of estimated costs for secondary schools	47.7	50.3	48.8
Percent of estimated costs for combined elementary-secondary schools	35.1	31.0	33.8
Number of minor remodeling projects	1,556	1,303	5,884
Estimated cost of remodeling projects	$3.7	$3.5	$15.1
Number of classrooms or laboratories involved in approved remodeling projects	4,968	3,328	15,291
Number in science	3,524	2,093	11,121
Number in mathematics	925	362	1,994
Number in foreign languages	519	873	2,176

Local Participation

A 1961 survey of members of the National Science Teachers Association revealed that 90 percent of a national sample of science teachers and supervisors were in schools benefiting from title III projects. State reports for fiscal 1961 and 1962 to the Office of Education gave evidence of a similar impact by this title on the three subject fields it covers. For example, a Far Western State reported that 60 percent of all its school districts, representing 90 percent of all students enrolled, participated in title III projects; a State in the Great Lakes Region reported that 90 percent of its schools were included in projects submitted; a Southeastern State, that nonparticipating districts represented only 3 percent of the pupil population; and a Southwestern State, that schools in all 77 of its counties had established projects under title III.

Local projects varied in size, some being for the purchase of one piece of equipment for one school, others for the equipping and minor remodeling of several chemistry or language laboratories in a school system. In some States a county submitted one comprehensive project for equipment and materials for all its schools in one or more subjects authorized by the title. During fiscal years 1961 and 1962, more than half of all State-approved projects involved amounts of less than $1,000 and more than half the projects were for school units with an average daily membership of fewer than 1,000 pupils. Though this suggests that in general small schools were benefiting under the program, in some States small schools did not participate because they lacked the funds to meet the local matching requirement or because State priorities favored large school units.

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[1] Net total equals net expenditures of Federal funds adjusted as of June 1963. Because of State legislative action in 1961, Wyoming schools did not participate during the latter part of fiscal 1961 nor any part of fiscal 1962. Arizona has not participated to date, though a State plan has been submitted and approved.

Secondary schools continued to receive most of the funds, with approved projects amounting to 47.7 percent in fiscal 1961 and 50.3 percent in fiscal 1962. Elementary schools received 17.2 percent and 18.7 percent in fiscal 1961 and 1962, respectively. Combined elementary-secondary projects accounted for 35.1 percent and 31.0 percent in these 2 years.

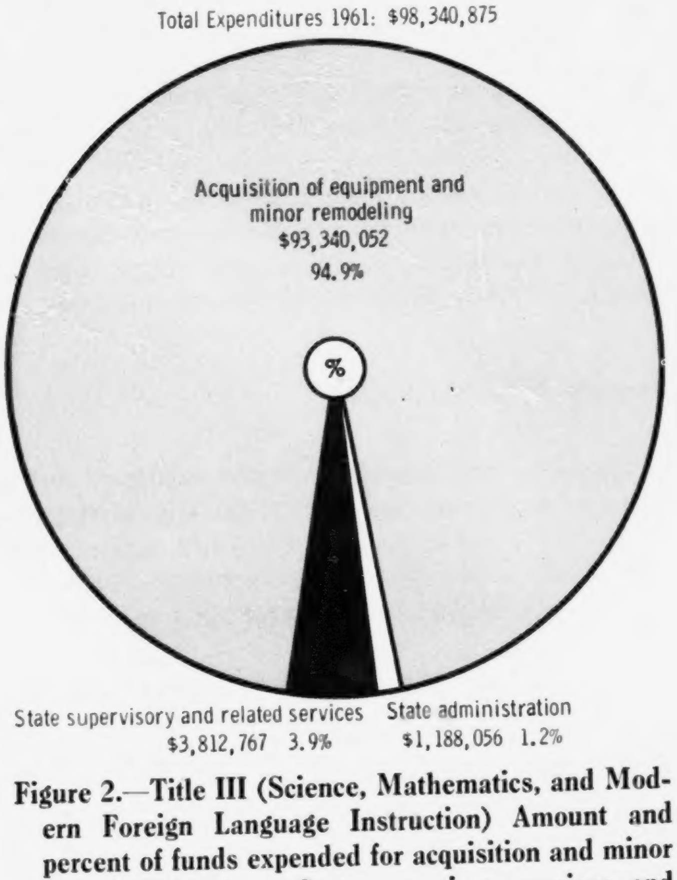

Figure 2.—Title III (Science, Mathematics, and Modern Foreign Language Instruction) Amount and percent of funds expended for acquisition and minor remodeling projects, State supervisory services, and State administration of the title III plan; Federal, State, and local funds: Fiscal year 1961.

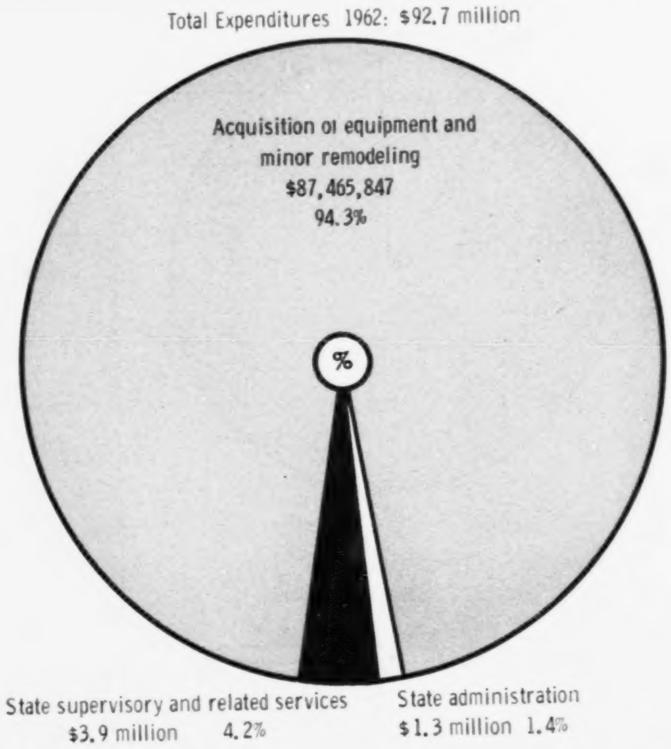

Figure 3.—Title III (Science, Mathematics, and Modern Foreign Language Instruction) Amount and percent of funds expended for acquisition and minor remodeling projects, State supervisory services, and State administration of the title III plan; Federal, State, and local funds: Fiscal year 1962.

Impact on Science

Acquisition of equipment and materials for strengthening science instruction was involved in 31,134 projects approved during fiscal 1961 and in 33,649 approved during fiscal 1962. Remodeling as a part of projects affected 3,524 and 2,093 classrooms or laboratories in fiscal 1961 and 1962, respectively. The majority of the States reported that science laboratory facilities were increasing in quantity and quality.

State reports for both years stressed the value of the program to their schools. One Southwestern State noted that the new laboratory facilities allowed its schools to change from the exclusively lecture method of teaching science; another report, from the District of Columbia, stated that owing to the rapid acquisition of laboratory facilities about 83 percent of the 7–9 grade students had or would shortly have up-to-date facilities; and a third, from the Rocky Mountain Region, said simply: "We have moved forward in science instruction 10 years since title III was initiated."

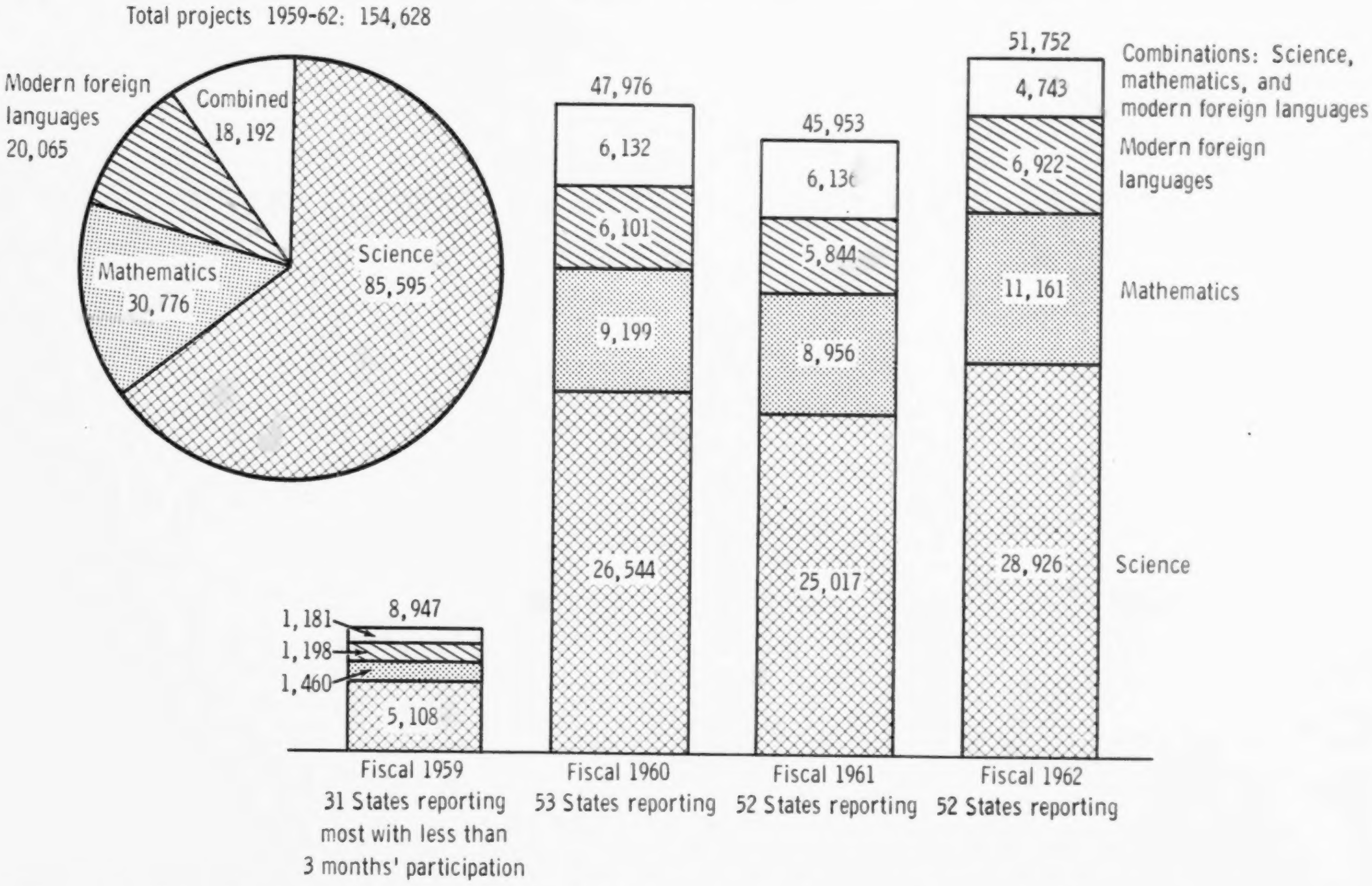

Figure 4.—Title III (Science, Mathematics, and Modern Foreign Language Instruction) State projects approved for the acquisition of equipment and minor remodeling: Fiscal years 1959–62.

But the reports also evidenced concern about the continuing inadequacy of school facilities for teaching science courses at all levels. Some typical examples follow: One report, from a State in the Plains Region, stated flatly that, although title III had increased science laboratory facilities there, probably less than 10 percent of the schools had adequate facilities for all pupils studying science. A consultant in a New England State estimated that, although 99 percent of the secondary schools had laboratories, about 90 percent of the schools he visited were inadequate for one or more of the sciences. A Southeastern State reported that only 20 percent of the elementary schools and 60 percent of the high schools had adequate facilities for all pupils to study science.

Inadequacy of facilities at the elementary school level was mentioned again and again. Reports from a Southeastern and a Rocky Mountain State both estimated that less than 1 percent of their elementary schools had facilities suitable for modern science; and a report from a Great Lakes State contained the statement that, although 25 percent of the elementary schools there possessed science laboratory facilities, not more than 5 percent of these would be considered adequate.

Impact on Mathematics

Mathematics classrooms were equipped with instructional aids through 14,606 approved projects during fiscal 1961 and 15,402 projects in fiscal 1962. As part of these projects, 925 classrooms were remodeled in fiscal 1961 and 362 in fiscal 1962.

Though the mathematics laboratory is gaining acceptance in some schools, expenditures for mathematics equipment and laboratories are not likely to approach those for modern chemistry or language laboratories since equipment for teaching mathematics is generally less costly. The relatively smaller expenditure for mathematics (8.4 percent of the total cost for all approved projects in fiscal

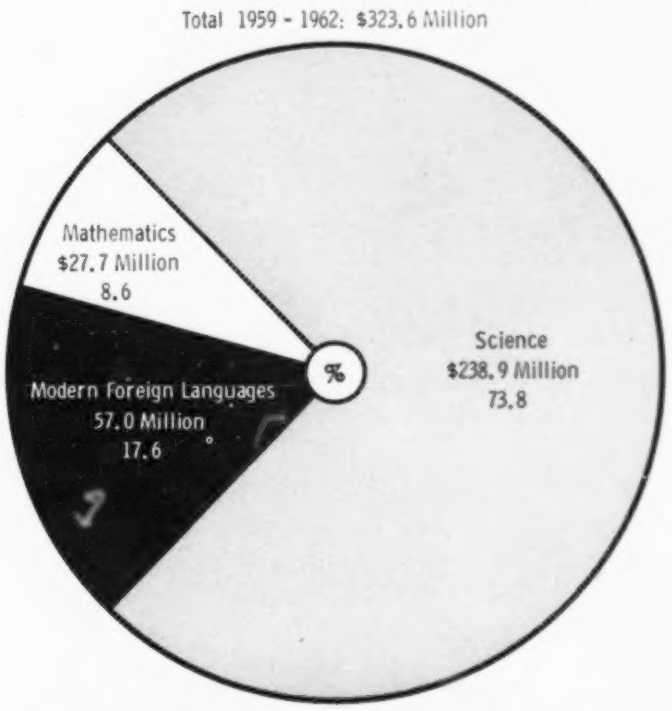

Figure 5.—Title III (Science, Mathematics, and Modern Foreign Language Instruction) Estimated total costs and percentage distribution of approved projects involving local, State and Federal funds: Fiscal years 1959–62.

1961 and 9 percent in 1962) undoubtedly explains why 30 percent of the mathematics teachers surveyed by the National Council of Teachers of Mathematics in 1961 said that as yet they had received no additional equipment under NDEA. However, more than half (52 percent) of these teachers reported that they had received "some" title III equipment, and 18 percent reported receiving a "great deal."

Evidence of the improved instruction in mathematics made possible by the teaching tools acquired under title III appeared in many State reports, which mentioned, for example, the introduction of "new" mathematics to give an early understanding of mathematical principles, such as the arithmetical principles used in modern high-speed computing machines and the introduction of advanced mathematics in lower grades. A New England State reported that course offerings had increased; that 90 percent of its secondary schools were either offering or contemplating introducing new topics, approaches, and books; and that 34.8 percent claimed to be making provision for gifted students. In a Southeastern State, 94 percent of 68 principals questioned said that students showed an increased interest in mathematics after the purchase of the appropriate materials, and that the quality of the mathematics programs improved as a result of this program.

But perhaps the most eloquent testimony of the improved teaching of mathematics at the high school level was afforded by State reports on the improved scholastic record of college freshmen. One State report attributed to title III help at the high school level an 85 percent drop in the number of college students taking remedial mathematics and a more than 300 percent increase in the number of freshmen taking advanced mathematics.

Impact on Modern Foreign Languages

The number of projects involving funds for modern foreign language facilities reached 9,652

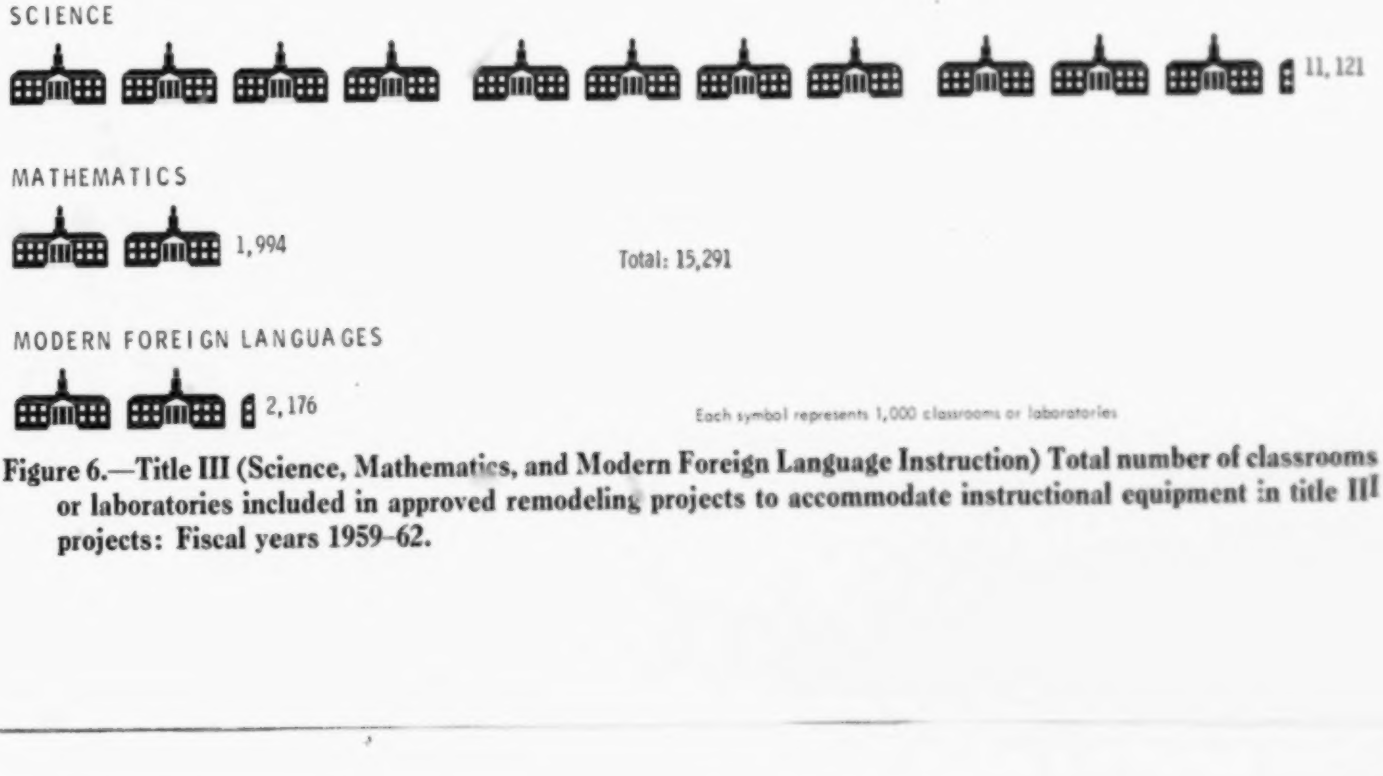

Figure 6.—Title III (Science, Mathematics, and Modern Foreign Language Instruction) Total number of classrooms or laboratories included in approved remodeling projects to accommodate instructional equipment in title III projects: Fiscal years 1959–62.

Courtesy, East Atlanta High School, Atlanta, Ga.

Students perform experiments on weather forecasting with equipment acquired under title III.

in fiscal 1961 and 9,759 in fiscal 1962, a significant increase over the fiscal 1960 total of 8,201. Minor remodeling affected 519 classrooms in fiscal 1961 and 873 in fiscal 1962.

The numerical growth of foreign language laboratories was characterized by one State report as "the most spectacular feat of the National Defense Education Act." The total number of these laboratories in the public schools of the Nation rose from 46 prior to NDEA to more than 5,000 by June 1962. To give some examples, taken from State reports for 1961 and 1962: A Far Western State, which had 1 language laboratory in 1958, 3 years later had laboratories approved for schools in 131 different buildings in 18 districts enrolling 81 percent of the high school students of the State. A Southeastern State, whose public high schools possessed not a single adequately equipped laboratory before NDEA, reported that one-third of its schools were equipped with either full or partial laboratories. A State report from the Plains Region recorded that of 245 high schools offering modern foreign languages, more than 50 had laboratories. Hawaii stated: "Without title III it is doubtful that language laboratory facilities could have been made available to any significant extent."

Courtesy, Valley High School, Albuquerque, N. Mex.

Special desks such as this are part of the equipment in some of the new mathematics laboratories available through NDEA, title III.

Impressive though the gain in the number of language laboratories has been, when this is measured against the number that might be required to provide language facilities to the 26,000 high schools in the country, the need for further growth becomes evident. This need is borne out by many State reports. A New England State, for example, reported that about 50 percent of the public secondary schools were equipped with language laboratory facilities, but considered only about 10 percent of them adequate for all foreign language pupils.

Under the Foreign Languages in Elementary Schools (FLES) program, the elementary schools continued to experiment with various methods of foreign language instruction in the early grades. This program's increasing momentum was exemplified by reports such as that from a Southeastern State that, by June 1962, 65,000 elementary school pupils were studying one modern foreign language, as compared with 5,000 in 1958–59; or, from a Southwestern State, that more than 100 schools were teaching languages to elementary pupils, and from another that many schools were offering a beginning foreign language in the first grade.

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Courtesy, Bennett High School, Buffalo, N.Y.

Language Laboratory purchased with the help of title III funds.

Impact on Courses and Enrollments

There is widespread evidence in State reports for fiscal 1961 and 1962 of increases in the numbers of pupils studying science, mathematics, and modern foreign languages at a rate exceeding the growth rate of school attendance. To cite a few examples: An Eastern State reported that while total enrollments in grades 9–12 indicated an increase of 64.3 percent, enrollments in science increased 75.7 percent, in mathematics 92.4 percent, and in foreign languages 188.2 percent. A Rocky Mountain State reported foreign language enrollments up 30 to 40 percent, with mathematics enrollments in advanced subjects up slightly, and chemistry and physics enrollments up about 15 to 18 percent. A Plains State reported that modern foreign language enrollments had more than doubled in 2 years, while a Southeastern State gave the following percentage increases in science enrollments as between fiscal 1961 and fiscal 1962: physical science, 159; biology, 17.8; physics, 318; advanced biology, 241; and advanced chemistry, 184. Another Southeastern State reported that a survey of 350 schools for the same period showed an increase of 20.6 percent more students than in the previous year enrolled in mathematics courses above general mathematics.

The effect of title III on school programs has been deeper than might appear at first glance. In the words of a State report from the Far West: "The efficient selection and use of project equipment requires (*a*) teacher familiarity with the content and laboratory activities of the subject, (*b*) a well-organized curriculum, and (*c*) the definition of goals at each grade level." One superintendent went so far as to remark that this planning by the teaching staff did more to improve instruction than did the money spent for equipment. "However," he added, "the dollars were the catalyst to start the entire process." A Plains State noted that the equipment and materials had in many cases changed secondary science courses from the textbook variety to full-scale significant laboratory experience for students and that this was true as well for mathematics and modern foreign languages.

A number of reports credited title III with causing an upgrading of courses outside the three fields it covered. A Plains State reported: "Perhaps most important, interest and effort at all levels—national, State, and local—has been stimulated in the areas of teacher improvement and curriculum modernizing." Another report, from a State in the Far West, summarized the situation in these words: "Title III has stimulated school districts to carefully appraise their present instructional programs, to identify weaknesses and new needs, and to move forward with new programs. . . . [It] has had a positive influence leading to the improvement of instruction in subject areas not included under the provisions of title III."

Loans to Nonprofit Private Schools

Authorization:
  Fiscal 1961: $8,400,000
  Fiscal 1962: $8,400,000
Appropriation:
  Fiscal 1961: $6,480,000
  Fiscal 1962: $6,480,000

Basis: Loans bear interest and are repayable within 10 years.

Provisions: Loan funds are allotted for use by schools in a State in the ratio that the State's enrollment in nonprofit private schools bears to the total of such enrollment in all the States. Application for a loan is made to the U.S. Commissioner of Education, who determines whether the application meets conditions necessary to protect the financial interests of the United States. Loans mature on a date agreed to by the Commissioner and the borrower, but in all cases the loans must be repaid in full with interest in not more than 10 years from the date the loan is made.

Loans bear interest at the rate arrived at by adding one-quarter of 1 percent per annum to the rate determined by the Secretary of the Treasury as prescribed by the act.

Twelve percent of each year's appropriation for acquisition of equipment is reserved for loans to nonprofit private schools.

A SIGNIFICANT PORTION of the elementary and secondary school population attends private nonprofit schools. Since it is the intent of the National Defense Education Act to increase the quality and quantity of science, mathematics, and modern foreign language offerings in all the Nation's schools, provision was made for loans to these schools for the same purposes as grants were authorized under the acquisition provision of title III.

In fiscal 1961, the U.S. Commissioner of Education approved 46 loans for a total of $651,485. Thirty-nine loans for a total of $671,727 were approved in fiscal 1962. The following table shows activities under this program during fiscal 1961 and 1962:

Item	*Fiscal 1961*	*Fiscal 1962*
Number of loans approved	46	39
Secondary schools	37	25
Elementary school	3	3
Combination	6	11
Amount of loans approved	$651, 485	$671, 727
Number of students affected	21, 406	19, 767
Interest rate range	3⅛ to 3½%	3¼ to 3⅝%
Amount of average loan	$14, 163	$17, 224
Number of States represented in loans approved	22	19

The total amount of loans approved as of June 30, 1962, was $2,822,028. One hundred and ninety-four loans totaling $2,451,362 were actually made during this 4-year period. Almost half of this amount, or $1,104,919, was approved during fiscal 1959. During fiscal 1962, the average loan requested was $17,224.

Loan repayments continued to be either on or ahead of schedule. Since the program began in 1959, only one loan, representing less than one-half of 1 percent of funds loaned, has remained in default.

Use of Loan Funds

In both fiscal years loan applicants stated that funds would be used primarily to offer science or language courses for the first time and to provide for increased enrollments.

Loans also enabled schools to meet standards for accreditation and to inaugurate programs for gifted pupils.

In fiscal 1961, 81.9 percent of funds requested were for science; in fiscal 1962, 73.9 percent. The percentage requested for modern foreign languages increased from 17.3 in fiscal 1961 to 25.8 in fiscal 1962. The percentage for mathematics dropped from 0.8 in 1961 to 0.3 in 1962.

During the first 4 years of the title, private nonprofit schools have borrowed only about 10 percent of the funds available. Private school spokesmen have said that their instructional equipment needs are no less than those of the public schools. The lack of participation they explain by pointing out that private schools can and do raise their funds for instructional equipment through private subscription. They say also that private nonprofit schools prefer to limit their debt obligations to major expenditures such as construction of school buildings. As the program becomes better known, loans may increase. Discussion of aid to private schools in recent months has increased the number of inquiries about the loan program. As of June 1962, however, there were no indications that the schools would borrow greater amounts than in previous years.

B. Grants to States for Supervisory and Related Services and Administration of the State Plan

Authorization:
Fiscal 1961: $5,000,000
Fiscal 1962: $5,000,000

Appropriation:
Fiscal 1961: $3,750,000
Fiscal 1962: $3,750,000

Basis: 50–50 matching by State funds required.

Provisions: The amount reserved for territories and possessions is 2 percent, allotted according to their needs. Funds are allotted to each State on the basis of the ratio of its school-age population to the school-age population of all States. No State's allotment may be less than $20,000.

An approved State plan must provide a program under which funds paid for supervision and administration will be expended solely for (*a*) expansion or improvement of supervisory or related services in public elementary and secondary schools in the fields of science, mathematics, and modern foreign languages, and (*b*) administration of the State plan.

TITLE III enlarges the States' historic responsibility for educational leadership by making the Federal grants directly to the State education agencies, which administer them in accordance with the provisions of the title. Federal funds are available to States for the administration of State plans, the expansion of State supervisory services to help local schools strengthen their programs in science, mathematics, and modern foreign languages, and the provision of services related to strengthening instruction, such as library and audiovisual services.

The Office of Education paid to 49 States, the District of Columbia, and 3 territories approximately $2.4 million for supervisory and related services and for the administration of State plans during fiscal 1961 and $2.8 million to 52 States and territories in fiscal 1962. (See table 8.) To qualify for these funds, States matched them dollar for dollar.

State Supervisory Services

State supervisory and related services vary among the States, each State considering its resources and needs in establishing priorities and standards for approving projects. Some States, as a part of long-term school improvement efforts, establish project approval priorities favoring larger administrative units; others give priority to a particular subject area. For example, in Delaware almost 50 percent of the funds allocated in 1 year were for projects in modern foreign languages, and in Puerto Rico 94 percent of approved projects were in science. Some States gave priority to elementary or to secondary school projects, depending upon their program emphases. In some cases, States exerted leadership in the area of teacher-qualification standards by requiring specified levels of preparation as a condition of project approval.

In carrying out their responsibilities under title III, States continued to add supervisory personnel to their staffs during fiscal 1961 and 1962. The overall increase in the numbers of specialist supervisory personnel in all participating State agencies in the three areas covered by title III was from 33 in 1958 to 221 in 1962. However, five States had no specialist supervisors in any of the three subject areas, and many State staffs were insufficient to provide the consultative and supervisory services local schools were demanding of them. Reasons for the continuing shortage were, in some cases, State inability to provide the required matching funds; in others, salary schedules that were too low to compete successfully for qualified personnel. Some States offset this disadvantage by using part-time consultants and advisory groups to meet the pressing needs and demands of the program.

In-service training.—Planning and conducting in-service workshops for science, mathematics, and modern foreign language teachers continued to be the major activity of State supervisory personnel throughout fiscal 1961 and 1962, and many State reports cited examples of these workshops and training programs. For example, 36,000 teachers or administrators attended State-sponsored workshops in 18 States that reported such statistics for fiscal 1961. In one Plains State, 8 curriculum conferences were held involving 450 educators; in another, 230 supervisory visits were made to science classrooms enrolling a total of 7,290 pupils. In a Far Western State no less than 40 districts conducted in-service training for elementary teachers. Two Rocky Mountain States used State-owned mobile laboratories for demonstrations in science and mathematics. Massachusetts echoed the sentiments of many States in reporting: "Along with the acquisition of materials, equipment and new facilities, we felt the most effective phase of the title III program was the expansion of the workshop program in all areas of the title." Many States, however, in the various regions of the Nation reported the need for additional workshops and in-service training.

Publications

Prior to NDEA, few State curriculum guides, study units, or bibliographies existed in the areas of science, mathematics, and modern foreign languages. During the past 4 years, however, with NDEA funds, publication activity has been intensive. A recent U.S. Office of Education bibliography listed 320 NDEA-financed State publications of this type: 121 in science, 77 in mathematics, and 122 in modern foreign languages. Others have appeared since this bibliography was compiled. In addition, States used title III funds to produce newsletters and bulletins containing information on instructional methods and materials.

Certification Standards

With added courses and upgraded course content, the demand for qualified teachers increased and, with it, the need for the maintenance or

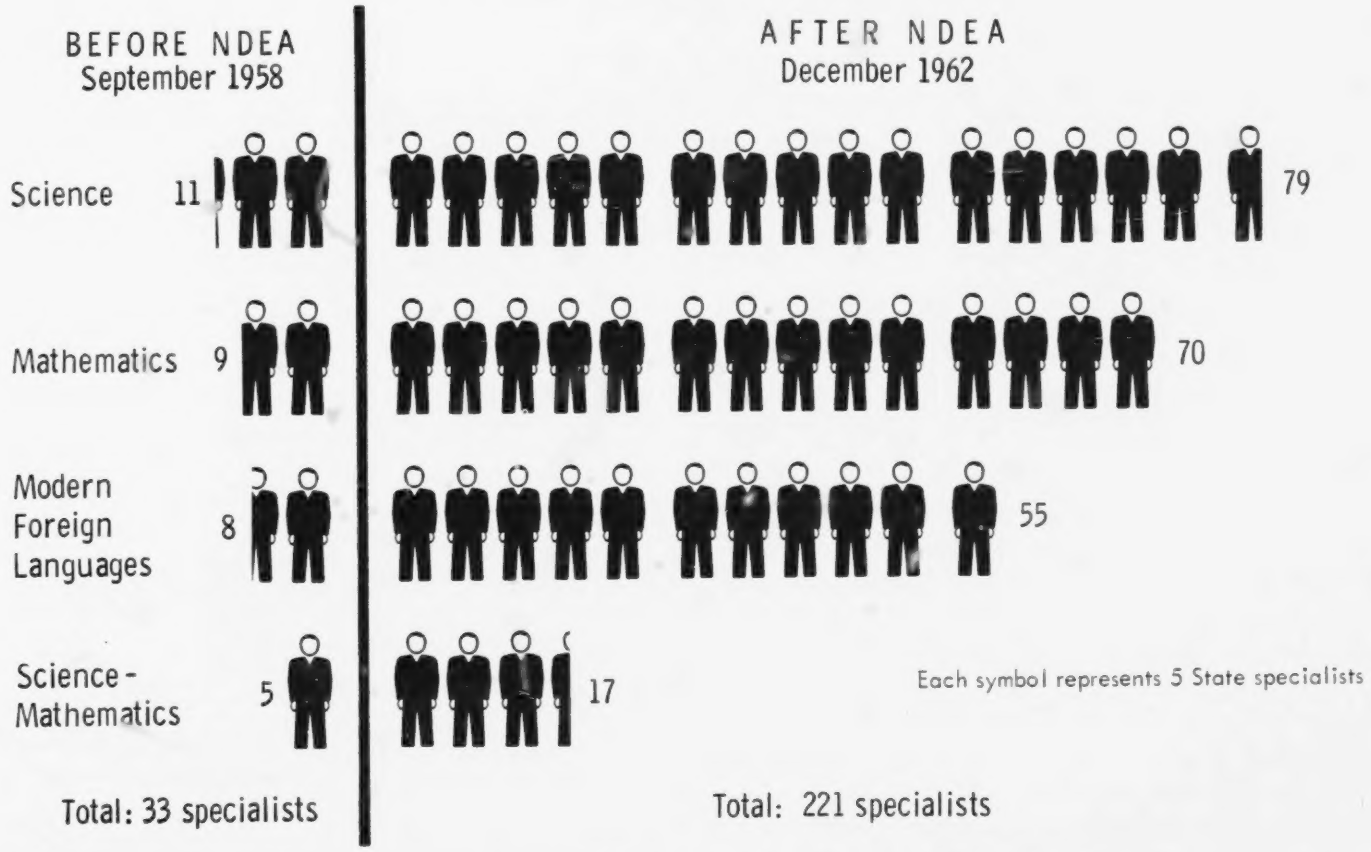

Figure 7.—Title III (Science, Mathematics, and Modern Foreign Language Instruction) Increase in number of State specialists in title III areas of interest: September 1958 to December 1962.

raising of teacher certification standards. Some States were able to increase the number of required semester hours for teachers preparing to teach science, mathematics, or modern foreign languages. A number of State reports received during this period stressed the need for upgrading certification requirements in mathematics, and at least four stated that such an improvement had already been effected. Some States stressed a speaking competency in foreign languages by establishing oral examinations for prospective teachers; nine reported progress toward accreditation of language teachers; and the North Central Association of Colleges and Secondary Schools, a regional accreditation agency for 3,500 high schools, raised its teacher certification standards from 15 to 18 hours, starting with the 1963 academic year.

Most States reported that they worked to bring college and State education departments together in their teacher education programs and recommendations for certification.

Activities of the U.S. Office of Education

In addition to approving State plans and amendments to plans, approving payments to the States according to an allotment formula and to their estimates of needs for the fiscal years, the U.S. Office of Education has:

- Provided consultative help to States in the acquisition and supervisory services programs and in fiscal and administrative procedures.
- Developed and distributed publications in the subject-matter areas affected by the title.
- Sponsored national conferences of State supervisors of foreign languages and mathematics.
- Developed and distributed bulletins clarifying policies and interpretation of certain provisions of the title.
- Prepared progress reports to the Congress based on materials supplied by the State reports.

Title IV. National Defense Fellowships

Authorization:
Fiscal 1961: Such sums as may be necessary to carry out the provisions of this title.
Fiscal 1962: Such sums as may be necessary to carry out the provisions of this title.

Allocation from appropriation:
Fiscal 1961: $19,868,000.
Fiscal 1962: $21,371,800.

Basis: No matching required.

Provisions: For the first year, 1,000 fellowships and during each of the 5 succeeding fiscal years, 1,500 fellowships, for periods of study not in excess of 3 academic years. Each fellow receives a stipend of $2,000 for the first year of graduate study, $2,200 the second year, and $2,400 the third year, together with an allowance of $400 annually for each dependent. An institution may receive not more than $2,500 each academic year for the costs reasonably attributable to each fellow pursuing a course of study in a program approved by the U.S. Commissioner of Education for title IV.

The Commissioner approves a program on evidence that: (1) upon the completion of such program, a Ph.D. or equivalent degree is awarded; (2) such program is a new program or an existing one which has been expanded; (3) the new or expanded program will further the increase of the facilities available in the Nation for the graduate training of college or university teachers and promote a wider geographical distribution of such facilities throughout the Nation; and (4) in the acceptance of persons for study in such a program, preference will be given to persons interested in teaching at institutions of higher education.

IN FISCAL YEAR 1961, National Defense Graduate Fellowships were awarded to 1,500 graduate students for study beginning in the 1961–62 academic year. During the same year, title IV support was continued for approximately 2,200 graduate students who had been awarded fellowships in the preceding 2 years. In 1961–62, these 3,700 fellows were studying at 149 colleges and universities in 678 doctoral programs, 474 of which had previously received support under title IV. Supporting grants totaling $9.6 million were obligated to the participating graduate schools for 1961–62, and $10.3 million went for stipends to fellows.

An additional 1,500 fellowships were awarded in fiscal year 1962 for study beginning in academic year 1962–63, and support was continued to nearly 2,550 fellows studying under fellowships awarded in previous years. (See table 17.) These 4,050 fellows were enrolled in 810 approved graduate programs at 161 colleges and universities. (See table 17.) Federal funds totaling $21.4 million were obligated in fiscal year 1962. Of this amount, $11.1 million was for stipends and $10.3 million for supporting grants to graduate schools. This brought the total of Federal funds obligated for title IV activity in the first 4 years of the program to $59.1 million.

Number of fellowships awarded, by type of program, academic years 1960, 1961, 1962, and 1963

Type of program	Number of fellowships awarded, by academic year			
	1959–60	1960–61	1961–62	1962–63
1	2	3	4	5
Total fellowships[1]	1,000	2,500	4,000	4,500
New	1,000	1,500	1,500	1,500
Continued	....	1,000	2,500	3,000
Total approved programs	272	474	678	810
New	272	202	204	172
Continued:				
With new fellows	....	202	321	396
No new fellows	....	70	153	242
Total participating institutions	123	139	149	161
New	123	16	10	15
Continued:				
With new fellows	....	121	135	138
No new fellows	....	2	4	8

[1] Figures for number of fellowships do not show resignations.

The programs approved for support in 1961–62 were selected from among 948 proposals requesting 5,094 fellowships. In 1962, 1,120 proposals were received, requesting 5,621 fellowships. The title IV advisory committee, with the help of consultants representing the various academic disciplines in the colleges and universities, reviewed the proposals and selected from among them those considered most likely to fulfill the purposes of the title IV fellowship program. The recommended programs were submitted each year to the Commissioner for approval.

The fellowships awarded for study beginning in the 1961–62 academic year were financed with funds appropriated for fiscal year 1961. Fiscal year 1962 funds were obligated for the 1962–63 fellowships. The fellowship awards were distributed among the major academic areas as follows:

Number and percent of graduate fellowships awarded, by academic area, academic years 1961–1962 and 1962–1963

Academic area	Graduate fellowships awarded, by academic year			
	1961–62		1962–63	
	Number	Percent	Number	Percent
1	2	3	4	5
Total	1,500	100	1,500	100
Biological sciences	195	13	243	16
Education	122	8	143	10
Engineering	146	10	166	11
Humanities	393	26	316	21
Physical sciences	233	16	256	17
Social sciences	411	27	376	25

Under a legal interpretation of the act, fellowships awarded to students who terminate their participation in the program prematurely cannot be reallocated. As of June 1962, 622 of the 5,500 students who had received fellowships had resigned. These included 284 of the 1,000 students awarded fellowships beginning in 1959–60, 260 of the 1,500 students awarded fellowships in 1960–61, and 78 of the 1,500 students awarded fellowships beginning in 1961–62.

Except during the first year of the program, when all fellowship awards were for 3 years of study, the policy has been to reserve 150 fellowships for 1 or 2 years of study. For tenure in 1961–62, participating graduate schools nominated 6 students for 1-year awards and 106 for 2-year awards. For tenure in the following year, they nominated 5 students for 1-year awards and 114 for 2-year awards.

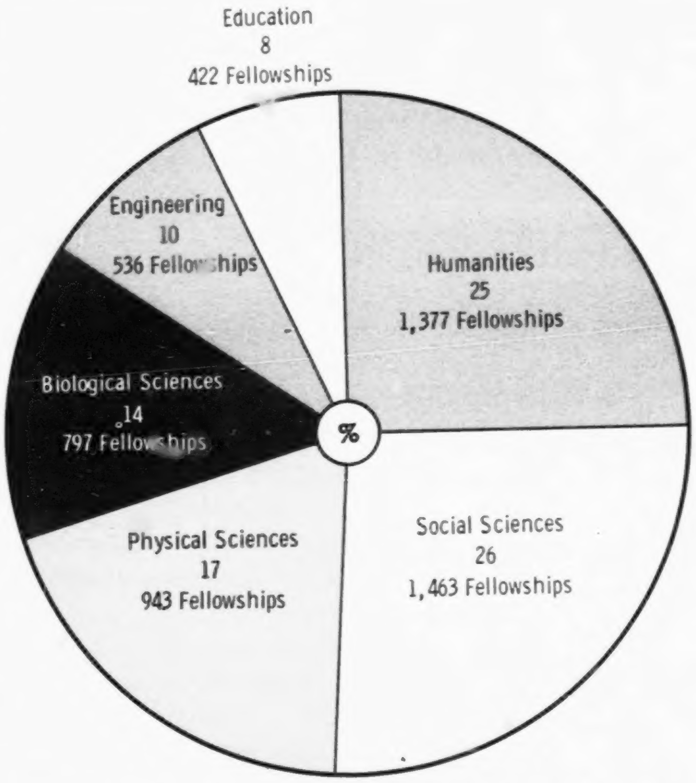

Figure 8.—Title IV (National Defense Fellowships) Number of graduate fellowships allotted, by academic area: Fiscal years 1959–62.

Graduate programs receiving title IV support must be either new or expanded. In approving programs for support, the Commissioner gives special attention to proposals from those areas of the country where the need for graduate training in a particular subject area is greatest. For example, members of the Association of Graduate Schools, which is composed of the better known graduate schools located primarily on the Eastern Seaboard, the West Coast, and in the Midwest, granted approximately 68 percent of the Nation's earned doctorates in 1958–59, but they received only 37 percent of the title IV fellowships in 1959, 41 percent in 1960 and 1961, and 39 percent in 1962. The majority of the awards have gone to the newer, smaller schools.

Title IV is having a considerable influence on the growth of graduate education in a number of States whose institutions have produced few, if any, doctoral candidates in the past few years. For example, in March 1958, the Regents of the

University of Idaho authorized the establishment of advanced studies leading to the Ph.D. and Ed.D. degrees, beginning in September 1959. Since that time, 53 title IV fellowships have been awarded for study in 8 approved programs at this university. Similarly, the University of Miami (Florida) received approval in 1957 to confer its first Ph.D.'s in June 1961. By the beginning of the 1962–63 academic year, 25 students had been awarded National Defense Graduate Fellowships for study in 5 approved programs there.

The focus of title IV is on programs rather than on graduate schools as a whole. The intent is not to establish new, or to support entire, graduate schools, but to assist universities in the orderly enlargement of those programs which they consider best able to benefit from Federal assistance. Thus, the Graduate Fellowship Program aims at making a selective impact by helping graduate schools strengthen those programs which give promise of continued growth. In physics, for example, most of the programs receiving title IV support are at institutions which are now building up their doctoral programs. Member institutions of the Association of Graduate Schools, which awarded 75 percent of the national total of doctorates in physics during 1958–59, have received only 54 (or 20 percent) of the 275 title IV fellowships awarded in this field during the first 4 years of the program.

In June 1962, approximately 670 students who had received awards for 3 years of study beginning in 1959–60 ended their fellowship tenure, in addition to 76 students who had been awarded 2-year fellowships beginning in 1960–61, and 6 who had been granted 1-year awards in 1961–62. Of this group, 101 fellows have reported that they completed all the requirements for the Ph.D. prior to September 1, 1962. By comparison, the normal completion time for the doctorate is 4 to 5 years. A total of nearly 525 of the terminating NDEA fellows who have not yet finished their doctorates will be continuing their studies in 1962–63. Inasmuch as a primary aim of the title IV program is to increase the supply of college teachers, it is significant that about 255 of these terminating fellows have reported that they will be teaching full or part time in colleges in 1962–63.

Title V. Guidance, Counseling, and Testing: Identification and Encouragement of Able Students

A. State Programs

Authorization:
Fiscal 1961 $15,000,000
Fiscal 1962 $15,000,000

Appropriation:
Fiscal 1961 $15,000,000
Fiscal 1962 $15,000,000

Basis: Matching 50-50 by State and/or local funds.

Provisions: To receive payments under this title, a State must develop a State plan, setting forth a testing program which will identify students having outstanding aptitudes and abilities in the public secondary schools of the State and, if authorized by State law, in nonpublic secondary schools.

The State plan must also set forth a program of guidance and counseling to advise students on courses best suited to their abilities, aptitudes, and skills and to encourage students of outstanding ability not only to complete their secondary school education, but also to go on to college.

Not more than 2 percent of the funds is reserved for distribution among the territories and possessions on the basis of need; the remainder is allotted to the States on the basis of school-age population. In those States which have approved State plans, but where the State education agency cannot under State law expend funds to operate a testing program for nonpublic secondary students, the U.S. Commissioner of Education arranges for the testing of those students.

The State plan must provide that the State education agency will be the sole agency for administering the plan, and that this agency will make such reports as may be necessary to enable the U.S. Commissioner of Education to perform his duties under the act. The State plan must also provide for such fiscal control and fund accounting procedures as may be necessary to assure proper disbursement of, and accounting for, Federal funds paid to the State.

DURING FISCAL YEAR 1961, $14.9 million was paid to 50 State education agencies, the District of Columbia and 3 territories for approved programs to establish and maintain guidance, counseling, and testing services to secondary pupils. In fiscal 1962, $14.4 million was similarly paid to 49 States, the District of Columbia, and 3 territories. (See table 18.) The amounts withheld from State allotments for testing secondary students in private nonprofit schools under contracts arranged for this purpose by the U.S. Commissioner of Education were approximately $45,000 in fiscal 1961 and $52,000 in fiscal 1962.

During the first 4 years of title V(A), States, territories, and the District of Columbia received a net total of $49.4 million in Federal payments.[1] This included $6.1 million in fiscal 1959, $14.0 million in fiscal 1960, $14.9 million in fiscal 1961, and $14.4 million in fiscal 1962. The States matched these Federal funds more than 6 to 1. The greatest portion of expenditures in title V(A) programs was allocated for local guidance and counseling services, the 4-year average for these being 94 percent of the total. (See table 18.)

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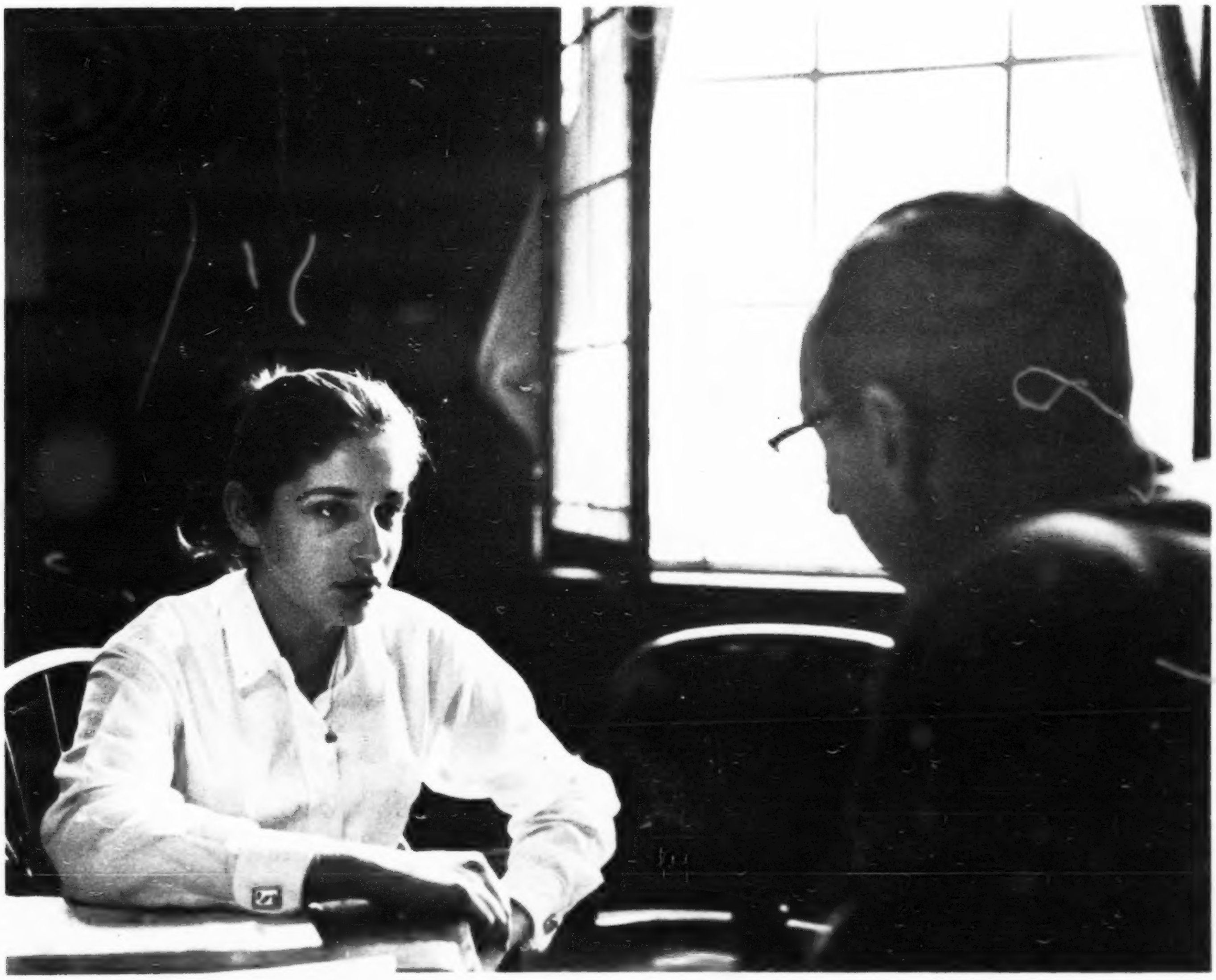
[1] Net total equals net expenditures of Federal funds adjusted as of June 1963.



A student receiving guidance from a counselor—Title V funds for guidance, counseling, and testing.

NDEA, State-Approved Programs—Funds from all sources, Federal, State, and Local

Fiscal year	Local guidance and counseling	State supervisory	Testing	Total
1	2	3	4	5
1959	$7,577,934	$991,654	$2,224,239	$10,793,827
1960	79,027,523	2,313,307	3,220,787	84,561,617
1961	101,585,717	2,696,364	3,288,450	107,570,531
1962	127,690,498	2,780,946	2,775,230	133,246,674
Total	315,881,672	8,782,271	11,508,706	336,172,649

Activities of State Education Agencies

In 1958, 48 States and territories reported that the total number of professional personnel employed at the State level in guidance and counseling activities was 69 persons full time and 30 persons part time. As of June 30, 1962, 52 States and territories and the District of Columbia reported 166 persons devoting full time to these activities and 74 persons devoting part time. Though the total growth (from 99 to 240) in the number of State education agency personnel involved in guidance services was impressive, 12 States still had only 1 professional person each assigned full time or less to State guidance activities.

Through their supervisors of guidance, State education agencies performed a wide range of services under this program. While counselor institutes authorized under part B of title V helped fill the demand for new and trained counselors, State agencies conducted extensive in-service

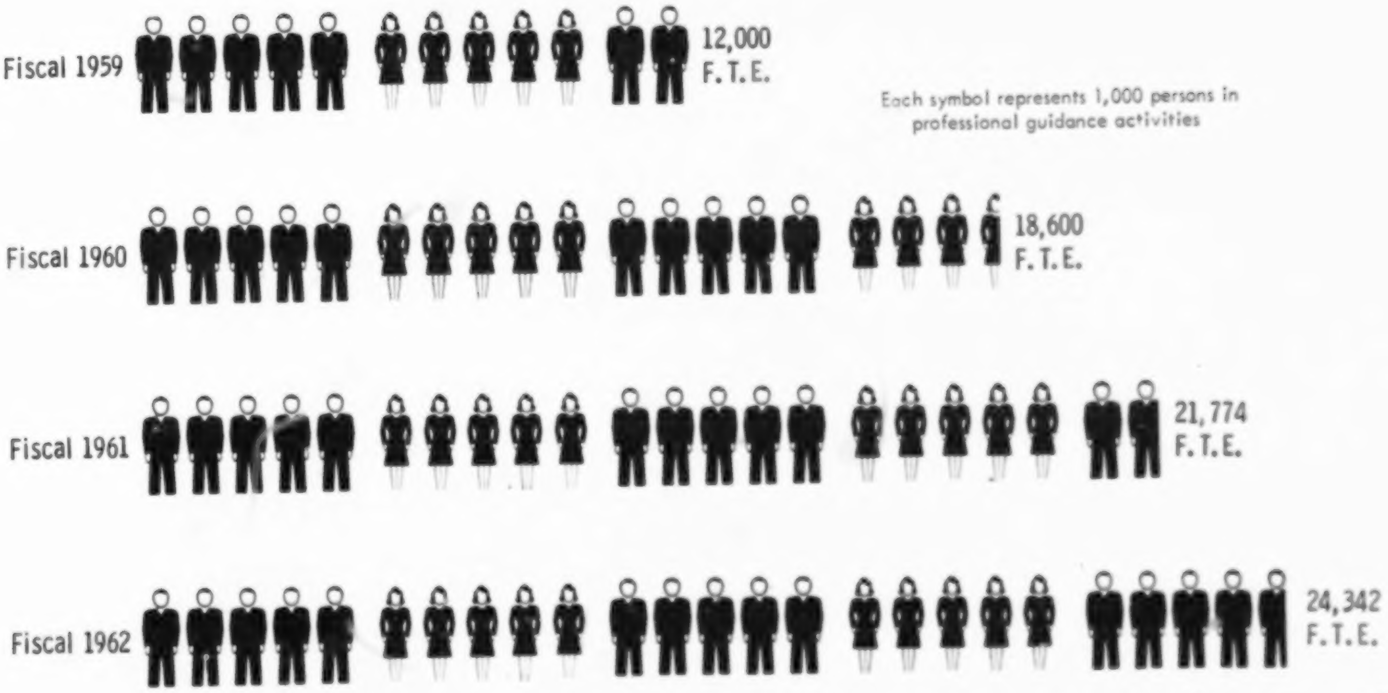


Figure 9.—Title V(A) (Guidance, Counseling, and Testing) Number of full-time equivalent guidance personnel serving public secondary schools and meeting qualifications as defined in State plans for title V(A): Fiscal years 1959–62.

training programs to develop and improve the qualifications of counselors already on the job. State-sponsored guidance workshops in one Southeastern State were attended by more than 2,000 school counselors and administrators. Through publications, State conferences, and consultative visits, agency professional staff provided information to local counselors and administrators regarding colleges, occupations, counseling facilities, and evaluative techniques. Many States conducted follow-up studies of graduates and dropouts and developed norms and expectancy tables based on the results of testing programs. Several States provided central test-scoring services at considerable saving to local districts. Some instituted extensive follow-up surveys of high school graduates, to determine the need and effectiveness of guidance programs.

State education agencies were active in raising counselor education requirements. As a *minimum* standard for participation in title V(A) programs, 23 States required, as of June 1962, either a provisional, professional, or regular guidance or counseling certificate. To meet higher State standards, large numbers of teachers and counselors attended guidance institutes and summer school sessions.

Working with local schools, State education agencies made progress toward improved counselor-pupil ratios and more adequate counseling time per pupil in spite of the shortage of qualified personnel. Guidance authorities generally agree that a ratio of about 1 full-time counselor to every 300 secondary pupils is desirable in the average school. By 1962, before they would reimburse local programs of guidance under the State plans, 37 States required local schools to maintain minimum ratios ranging from above 1:400 to 1:1,000. As a recommended standard, toward which all approved local guidance and counseling programs should progress, 33 States established ratios of 1:400 or less.

Some States effected an improvement in guidance services by altering their requirements for school accreditation. In one Plains State, for example, AA and AAA class schools were required to assign 1 clock-hour of counseling for every 80 secondary pupils enrolled. A Southeastern State reported that one of the most noteworthy steps taken in 1961–62 was the proposed upgrading of both counselor certification and school accreditation standards. By June 1962, several regional accrediting agencies included guidance programs in their appraisal criteria.

Local Programs of Guidance and Counseling

In fiscal 1962, the total number of full-time and part-time local counselors and supervisors meeting title V(A) State plan qualifications was more than 36,000, a gain of 2,000 (5.9%) over the 34,000 reported for fiscal 1961.

Expressing all part-time work in its full-time equivalent and thus calculating totals only in terms of full-time work, States reported an overall increase in counselors of more than 100 percent over the estimated 12,000 employed at the time of the enactment of NDEA, with approximately 21,800 in fiscal 1961 and approximately 24,400 in fiscal 1962. (See tables 19 and 20 and figure 9.) Increases reported by individual States in terms of full-time counseling included an increase in one State from 46 counselors in fiscal 1959 to 334 in fiscal 1962, in another from 429 to 876, and in a third from 39 to 232.

At the same time, the proportion of full-time to part-time counselors was raised. In one State counselors working full time increased from 11 percent of the total in 1959 to 47 percent in 1962.

In the total number of secondary school pupils served by school guidance programs, some States showed an increase of as much as 300 percent since 1958–59. Out of the estimated national total of 14,464,000 students attending public secondary schools in the 1962–63 school year, an estimated 10,600,000 (73%) will be enrolled in schools with guidance and counseling programs meeting State-approved title V(A) standards.

Testing Programs

During fiscal 1961, out of a total of more than 18 million scholastic aptitude and achievement tests administered to public secondary school students, 6.4 million were given under title V(A) programs. In fiscal 1962, out of a total of 19.8 million tests about 7 million were given under these programs. State education agencies also administered 480,000 tests under title V(A) programs to nonpublic secondary pupils in fiscal 1961, and 505,000 in fiscal 1962. In addition, in fiscal 1961 the U.S. Commissioner of Education, through contracts with nonprofit testing agencies, paid half the costs of administering 131,000 tests to nonpublic secondary school pupils in 38 States where the State education agencies were not authorized to expend funds for this purpose, and in fiscal 1962 of more than 145,000 such tests in 37 States.

In the hands of qualified counselors, test results can be important clues to the aptitudes and interests of students, thus making possible both the identification of talented students and their placement in accelerated classes and the development of appropriate educational and career plans for individual students. Test results also help administrators evaluate and improve regular and special education programs.

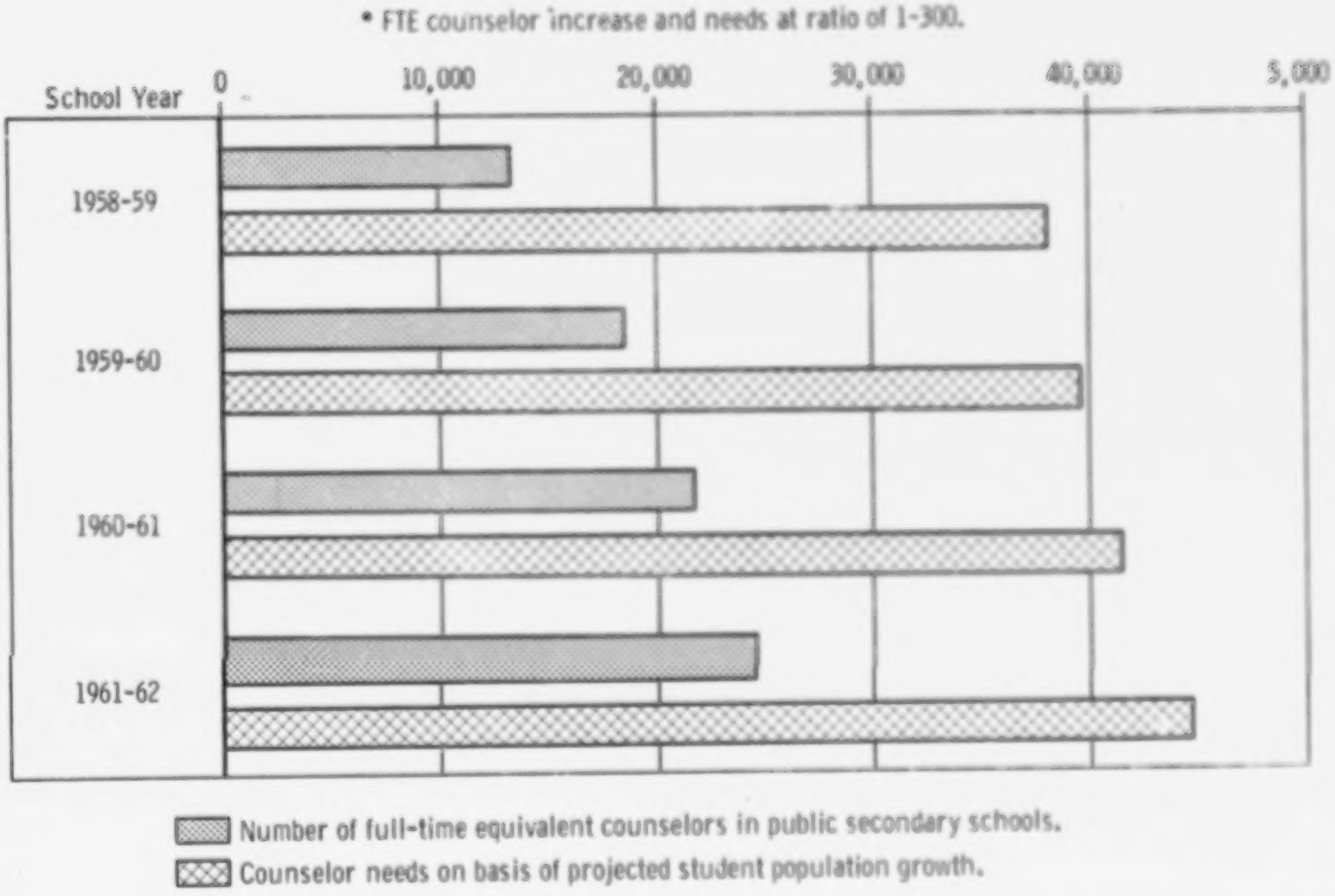
Effects of Program

On Curriculums

The needs and interests of students as revealed through testing and counseling services led to curriculum changes in schools in many parts of the Nation. A few examples of such curriculum changes taken from State reports for fiscal years 1961 and 1962, follow:

At a Far Western school a total of 24 programs were revised, involving 351 changes of class, with 2.5 percent of the students affected enrolling in the accelerated science program. At a Plains State school a new set of basic readers was adopted, emphasis was put on spelling in the 7th grade and on social studies in the 8th, while a new course in mathematics for the gifted was added. A Rocky Mountain State reported that practically all schools with enrollments of more than 400 were planning some grouping of students, particularly in mathematics and English.

Another State report from the Far West showed that 90 schools, comprising about 85 percent of the total State enrollment, increased their curriculum offerings and expanded their programs, largely to meet student needs indicated by guidance and testing. A New England State attributed changes in its secondary school curriculums to follow-up studies conducted by local guidance personnel. By June 1962, 60 percent of all high school students in the State were taking five or more basic subjects, as compared with 40 percent 5 years earlier. The District of Columbia reported that a study of mathematics scores by 9th grade students resulted in a 9-week crash program of remedial instruction.



* Full-time equivalent -- The amount of counseling time devoted by two or more counselors to equal the time of a full-time counselor.

Ratio -- 1 full-time counselor for each 300 students enrolled.

Figure 10.—Title V(A) (Guidance, Counseling, and Testing) Improvement in the counselor-student ratio: Fiscal years 1959–62.

On Holding Power

The influence of expanded guidance services in reducing the number of young people who drop out of high school before graduation was increasingly evident in State reports for fiscal 1961 and 1962.

Illustrative of the many statements regarding the decrease in the percentage of dropouts and the increase in the percentage of students going on to college in these years are the following:

—A Southeastern State reported a 6.3 percent reduction in dropouts during 1961–62 as compared with 1960–61, and a 12.79 percent decrease in the number of student failures during the same period.

—A school superintendent in a New England State wrote that, while it had been normal for only 1 or 2 of the graduating class of approximately 60 to continue their education after graduation, "under NDEA, a counselor has been working in the school for 2 years and this June, 24 of the class of 60 have been accepted by institutions of higher learning."

—The Utah State report summarized the sentiments of most States:

> Research studies . . . indicate decreases in dropouts, greater interest in follow-up studies, greater utilization of test results in helping students understand themselves, more work with curriculum and instruction programs . . . These and other upgraded programs certainly attest to the value of guidance services in the State and directly to the impact of the National Defense Education Act upon school guidance services.

On Educational and Career Planning

There is evidence from reports received during fiscal 1961 and 1962 that a significant portion of the participating schools were expanding and improving educational and career information and planning services. A few typical examples follow:

—A New York State school reported that funds received under the title V(A) program had enabled it to increase the efficiency of its college and scholarship counseling and that this had "resulted in a high percentage going to college and the greatest amount of scholarship assistance received in the history of our school."

—A report by a New England State showed a 54 percent increase in 1956–1961 in the number of high school graduates going on to college and evidence that individual schools were sending twice as many students on to further education as they had sent 5 years earlier.

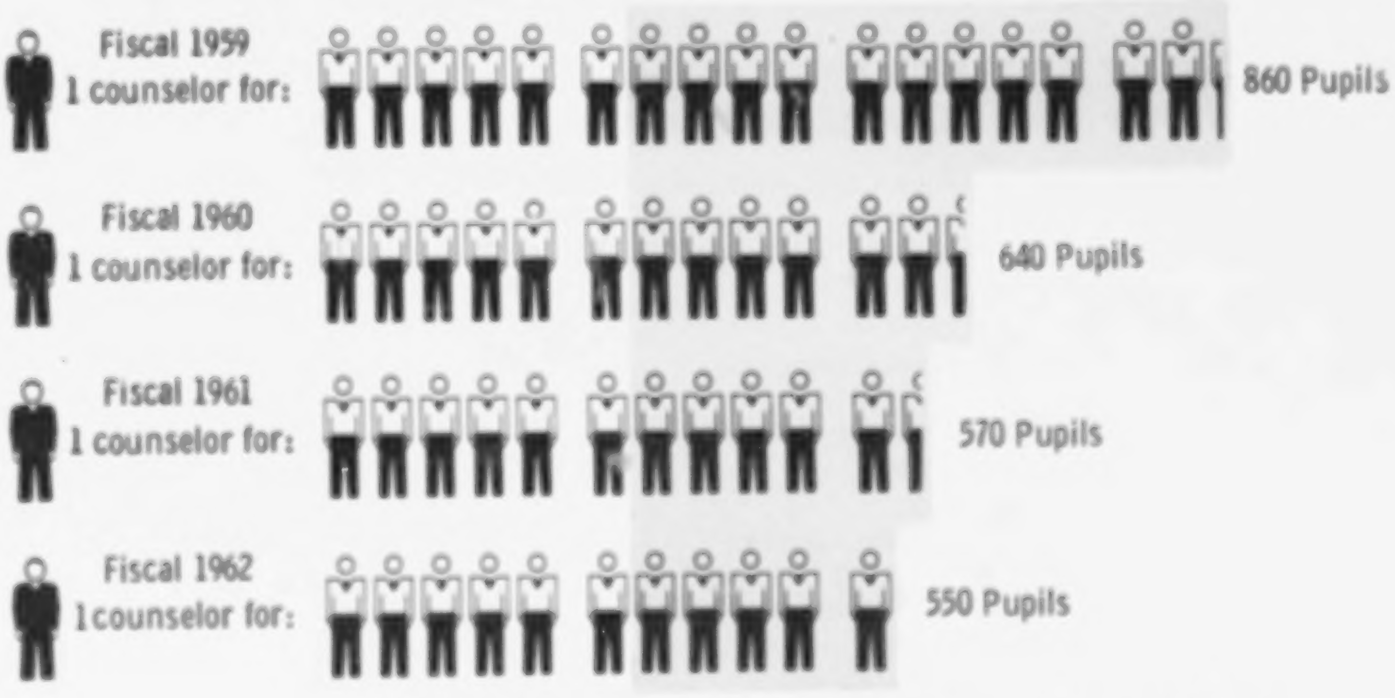
—One Southeastern State reported that better educational planning was in evidence in all its schools, while another reported an increase of about 40 percent at one school in the number of top seniors going on to college.

—A county school in Georgia expressed the consensus of many States in these words: "Students are consistently showing keener interest in and awareness of the world of work. They are for the most part taking advantage of opportunities to learn more about their interests, capacities, and limitations to enable them to make better educational and vocational choices."

Activities of the U.S. Office of Education

In addition to fulfilling its continuing obligations to approve State plans and amendments, to make payments to the States based on State estimates of needs within the allotment formula, and to develop regulations to serve as a guide to States in carrying out their programs, the Office of Education during fiscal years 1961 and 1962 engaged in such activities as:

—Providing consultative help on programs and administrative and fiscal procedures to State



Each symbol represents 50 public secondary school pupils

Shaded symbols equal load in excess of desirable ratio

Figure 11.—Title V(A) (Guidance, Counseling, and Testing) Improvement in the ratio of total employed public secondary school guidance personnel to the total public secondary school population: Fiscal years, 1959–62.

education agencies. In both fiscal 1961 and fiscal 1962, Office guidance specialists visited 48 agencies, averaging about 3 days for each visit.

—Developing and distributing studies and publications to assist States in their work with local agencies.

—Providing consultative services in the production of a half-hour-long film explaining and portraying the role of the school counselor.

—Conducting in October 1960 a national conference attended by more than 100 State guidance supervisors, and in February–March 1961 conducting eight regional conferences of State supervisors and counselor educators.

B. Counseling and Guidance Training Institutes

Authorization:
Fiscal 1961: $7,250,000
Fiscal 1962: $7,250,000

Allocation from appropriation:
Fiscal 1961: $6,300,000
Fiscal 1962: $7,062,000

Basis: Cost reimbursement under contract. No matching required.

Provisions: Funds are provided for short-term institutes conducted in the summer and for regular session institutes conducted in the academic year. Secondary school counselors or secondary school teachers preparing to be counselors in secondary schools are eligible to attend institutes. Public school personnel attending institutes are eligible to receive weekly stipends of $75 and an allowance of $15 a week for each dependent. Private school personnel attend institutes without charge, but do not receive stipends.

THE COUNSELING AND GUIDANCE INSTITUTES Program continued to help meet the urgent need for more and better trained counseling and guidance personnel. In the first 4 years 11,524 counselors had received training at regular-session and short-term institutes. Fiscal year 1961 funds supported 76 short-term and 17 regular-session institutes enrolling 3,126 secondary school teachers and counselors (see tables 25 and 27); fiscal 1962 funds supported 66 short-term and 21 regular-session institutes, with 2,567 enrollees (see tables 26 and 28). About 61 percent of the cost of the program in these 2 years consisted of stipends for enrollees and allowances for their dependents.

The enrollees were either high school counselors or teachers preparing to be high school counselors. The training was designed to improve significantly their qualifications for counseling services, particularly for working more effectively with academically able high school students. Enrollees came from all parts of the country (qualified enrollees may attend institutes of their choice, regardless of location), and virtually all earned graduate credit upon completion of work at their institutes.

Of the 5,693 enrollees trained during the second 2 years of the program, 5,575 were from public secondary schools and 118 from private secondary schools. About 75 percent of the 4,511 enrollees at short-term institutes had been engaged in counseling and guidance activities for half time or more prior to attendance, 15 percent for less than half time, and 10 percent not at all. Of the 1,182 enrollees at regular-session institutes, about 30 percent had been engaged in counseling and guidance activities for half time or more before attending the institutes, 30 percent for less than half time, and 40 percent not at all.

During the first 2 years of the program the emphasis had been on short-term institutes; in fiscal years 1961 and 1962 the emphasis was shifted to regular-session institutes. The following table gives a percentage breakdown, by fiscal year, of funds used for short-term and regular-session institutes.

Type of institute	Percent of funds, by fiscal year			
	1959	1960	1961	1962
Short-term	66	57	46	37
Regular-session	34	43	54	63

This shift in emphasis was made because of the great need for more personnel with a full year of counselor preparation. Since title V(B) is intended to complement rather than to supplant existing programs of counselor education, its greatest contribution is the provision of high-level training in counseling.

Beginning with the summer of 1962, the program adopted a policy of conducting short-term institutes designed to enable high school counselors who have had less than a year of graduate counselor training to bring their training up to the equivalent of a full year. About 70 percent of short-term 1962 institutes were of this type. The remaining 30 percent served special or refresher purposes, in keeping with the intent of the act, for individuals already engaged in secondary school counseling who had completed 30 semester hours or more of professional preparation, but who were in need of special purpose or refresher training.

The regular-session institutes conducted in 1961–62 and 1962–63 provided a full year of graduate study to secondary school personnel with little or no previous training in counseling and guidance, thereby strengthening the trend toward a full year of professional training as a minimum requirement for those appointed as counseling and guidance personnel in secondary schools. They also help to meet the need for preparing professionally trained counselors more rapidly than the customary practice by which teachers attain competence as counselors over a period of several summer sessions.

The test of the program is its effect on the participants and, through them, on the counseling and guidance services provided high school students. Evidence of such impact is already accumulating. Follow-up surveys have been conducted of enrollees who attended the institutes in the summers of 1959, 1960, and 1961, and during the academic years of 1959–60 and 1960–61. Respondents to these surveys furnished the following data which illustrate the impact of the program:

Enrollees have improved their qualifications to meet certification requirements.

Many enrollees have met all course requirements for certification through train-

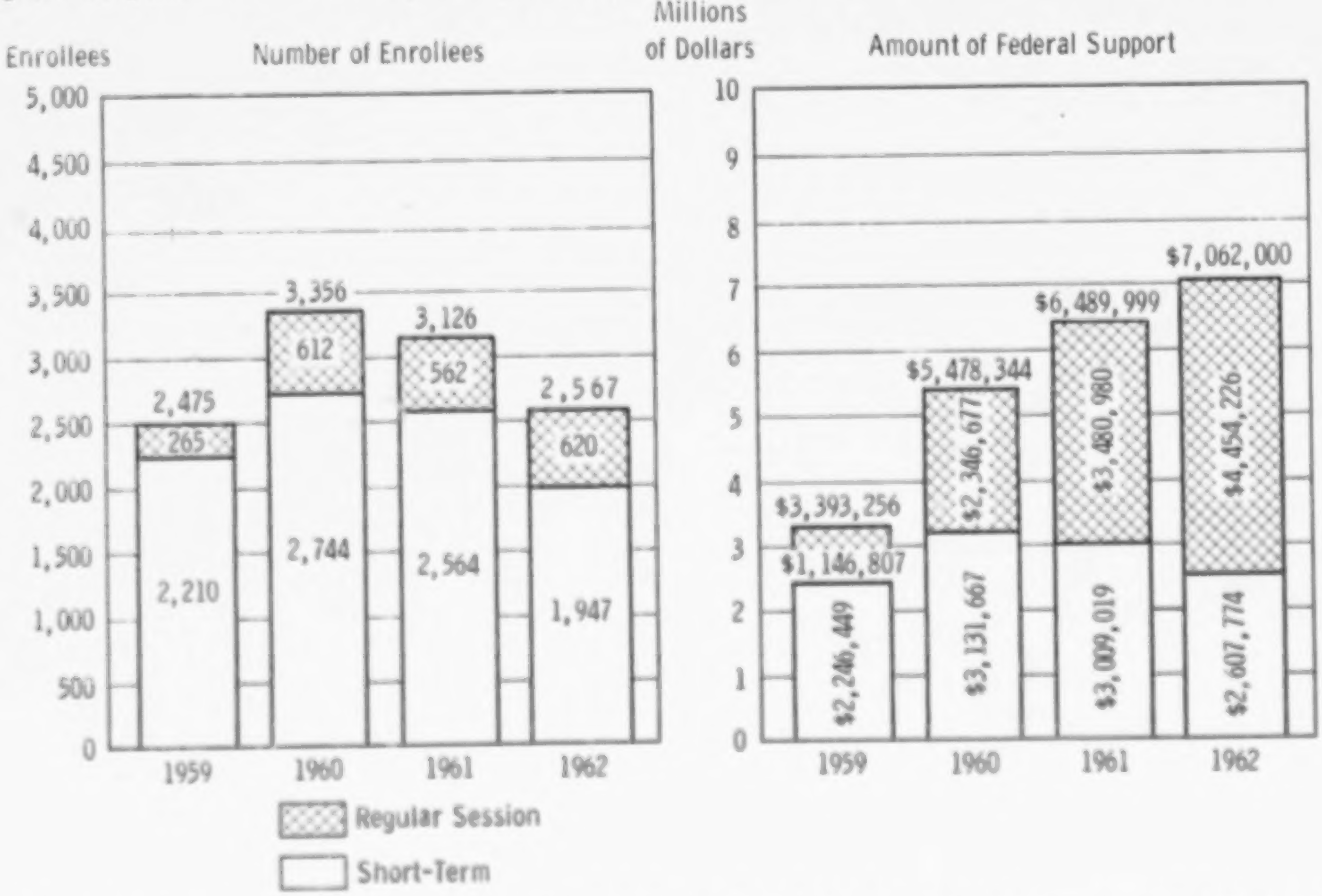


Figure 12.—Title V(B) (Counseling and Guidance Training Institutes) Number of enrollees and amount of Federal support, by year and type of institute: Fiscal years 1959–62.

ing provided at the institutes. Of enrollees from States with provision for counselor certification who held less than the highest certificate, about 41 percent of the short-term and 58 percent of the regular-session enrollees reported that the institute training had enabled them to meet all course requirements necessary for a higher level of State certification. Somewhat more than a third of the short-term and about a fourth of the regular-session enrollees either came from States without provisions for certification or already had permanent certification status.

Enrollees have been encouraged to continue their professional growth.

More than half have continued some professional study in other than federally sponsored training programs. About a third of those attending short-term institutes and more than half of those attending regular-session institutes have subsequently affiliated with a major professional organization related to counseling and guidance.

Enrollees have continued to serve secondary schools in the States where they were employed prior to attending the institutes.

About 95 percent of the short-term and 79 percent of the regular-session enrollees returned to secondary schools in the States where they had been employed. About 84 percent of the short-term and 54 percent of the regular-session enrollees returned to the same schools. About 3 percent of the short-term and 13 percent of the regular-session enrollees were not employed in secondary schools or systems during the post-institute school year. About 2 percent of the short-term and 8 percent of the regular-session enrollees served in different secondary schools and in different States during the post-institute school year.

Enrollees have increased the time that they spend in counseling activities with secondary school students.

The "average" enrollee, in the year following his institute experience, spends more time than formerly in the individual counseling of secondary school students, particularly the academically able, and in all counseling activities with these students. Regular-session enrollees spent about 30 percent of their time in counseling and guidance activities prior to the institutes and about 60 percent following the institutes. This net increase of 30 percent is roughly three times greater than the net increase for short-term participants, probably because regular-session enrollees were more often those with no or lesser engagement in counseling prior to the institute experience.

The impact of the program, however, is more than merely numerical. It may also be found in the increased enthusiasm and professional competence of the counselors returning to secondary schools throughout the Nation; in the stimulation of greater awareness of the need for and the importance of high-quality counseling and guidance services; and, finally, and most importantly, in the benefits of these services for the individual high school student.

Title VI. Language Development

A. Centers and Research and Studies

Authorization:
Fiscal 1961: $8,000,000
Fiscal 1962: $8,000,000

Allocation from appropriation:
Fiscal 1961: $6,548,700
Fiscal 1962: $8,000,000

Basis: Contracts for Language and Area Centers, not to exceed 50 percent of cost for new and/or expanded activities; contracts for research and studies; and stipends and allowances for language fellowships, no matching required.

IN ITS FIRST 4 YEARS of activity, the title VI Language Development Program has helped greatly to increase the scope and quality of language instruction in the United States. This has been especially true with regard to the "uncommon" languages—languages critically needed by the Government, business, industry, and education, but which have been rarely taught in U.S. colleges and universities.

The three interlocking programs authorized under part A of title VI—Language and Area Centers, Modern Foreign Language Fellowships, and Research and Studies—are designed to strengthen instruction in modern foreign languages at all levels of education. They have helped to focus on the Nation's need for (1) improved instruction in the neglected languages and related area studies, (2) trained individuals in the neglected languages and related area studies, and (3) research to determine more effective methods of teaching and for specialized teaching materials.

Through Research and Studies projects, new and improved methods of language teaching have been developed; these new methods and materials have been quickly put to use at the Language and Area Centers to aid in the teaching of 66 neglected languages; and among those benefiting most directly from this improved instruction are the students enrolled at the Centers, including holders of title VI Modern Foreign Language Fellowships. Federal assistance has been provided to institutions of higher education, to students, and to the *language teaching profession as a whole.*

Through these three related activities, in addition to the establishment of institutes for elementary and secondary school language teachers under Part B of title VI, the Language Development Program continues to play a leading role in strengthening language instruction at all academic levels.

1. Language and Area Centers

Allocation for fiscal year 1961: $1,751,007

Allocation for fiscal year 1962: $2,080,000

Provisions: The U.S. Commissioner of Education is authorized to arrange through contracts with institutions of higher education for the establishment and operation by them of Language and Area Centers for teaching any modern foreign language for which he determines (1) that individuals trained in that language are needed by the Federal Government, or by business, industry, or education in the United States, and (2) that adequate instruction in that language is not readily available in the United States. Centers provide instruction in the language and also in other fields needed to provide a full understanding of the areas, regions, or countries in which the language is used, in such fields as history, political science, linguistics, economics, sociology, geography, and anthropology, to the extent that adequate instruction in such fields is not readily available. Up to 50 percent of the cost of the establishment and operation of a Language and Area Center may be supported with Federal funds, including travel allowances for members of the center staff to go abroad and for foreign scholars to be brought from their countries to the centers to teach or assist in teaching.

A LANGUAGE AND AREA CENTER is a program within an institution of higher education which provides instruction in a modern language or languages of a country or world region not commonly studied in the United States; such instruction is closely integrated with study of the institutions, history, and culture of that area.

Under title VI, the Federal Government may pay up to 50 percent of the cost of establishing and operating a center it has selected for support. Centers receiving this support must provide assurances that the sponsoring institutions intend to give long-term backing to the center and thus enable it to continue beyond the immediate period of establishment or expansion under the stimulation of Federal aid.

Except in a few instances, the Language and Area Centers Program is forward-financed; thus each fiscal year's obligation supports center activity for the following academic year. Federal funds allocated to this program in fiscal year 1961 totaled $1,751,007; in fiscal 1962, $2,080,000. This brought the total obligations of the program for the first 4 years to $5,902,945.

Support to the 46 centers already in receipt of funds under this program during fiscal 1960 was continued throughout fiscal 1961 and 1962. During fiscal 1961, support was extended to an additional Slavic center. In July 1961, following President Kennedy's call for an Alliance for Progress and the consequent emphasis on Spanish and Portuguese, five Latin American centers were granted support, starting with the 1962 spring semester, through special allocations from fiscal 1962 funds. Support was continued to all 52 centers during fiscal 1962 and was extended to an additional Uralic-Altaic center, bringing the total for that year to 53. These centers were sponsored by 33 institutions located in 22 States and the District of Columbia (see table 31).

As specified by the act, the centers selected were those offering one or more of the uncommon foreign languages designated by the U.S. Commissioner of Education as needed by Government, business, industry, and education, for which adequate instruction had not been readily available. Thus, French, German, and Italian have not been given support through this program because instruction in these languages was commonly available.

Centers offering instruction in Slavic languages and area studies received the greatest proportion of title VI funds in fiscal 1961 and 1962, followed by Near and Middle Eastern, Far Eastern, South Asian, Latin American, South East Asian, Slavic-Far Eastern, African, and Uralic-Altaic language and area studies, in that order. Federal funds were used to increase course offerings by employing additional faculty, enlarging libraries, and helping to bring foreign scholars to this country to teach at the centers.

Of particular importance to the centers has been the growing availability of instructional material in the uncommon languages, much of which has been produced under title VI Research and Studies contracts. In addition, NDEA Modern Foreign Language Fellowships are enabling a considerable number of students to pursue full-time graduate work in language and area studies.

One development made possible by these new methods and materials has been the introduction at the centers of intensive summer programs of language instruction. During the summer of 1962, 20 NDEA Language and Area Centers received a total of about $126,000 in Federal support for intensive summer programs in 21 neglected languages. This was the first time that special support had been given on such a large scale for intensive summer programs in the uncommon languages; only a few years earlier, even had such support been available, many of these programs could not have been offered for lack of teaching materials.

The growth of the center concept in recent years, aided by NDEA activity, is producing encouraging results. Not only has there been an increase and improvement in the instruction available to students in critical and hitherto rarely taught modern foreign languages, but there also has been an increased recognition by scholars throughout the United States of the importance of language and area studies. Moreover, since this concept of scholarly concern with a particular world region is not limited to any one historical epoch or academic discipline, activity at the centers has helped to stimulate interdepartmental cooperation at the sponsoring institutions, as well as the development of general survey courses in non-Western civilizations.

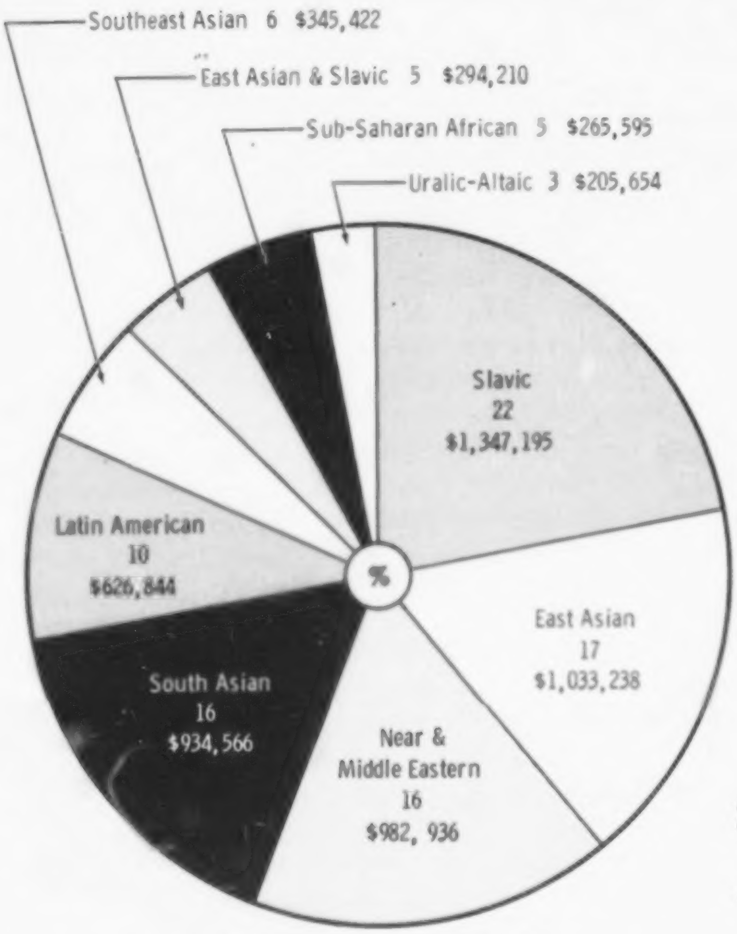


Figure 13.—Title VI (Language Development) Language and Area Centers: Distribution of Federal support to centers, by language group: Fiscal years 1959–62.

As the status of language and area programs in the Nation's colleges and universities continues to improve, as the methods employed in language teaching become more effective, and as the materials available for such instruction increase both in volume and quality, a greater proportion of able students than ever before may be drawn to careers in this field. Since the centers operate primarily on the graduate level, they will produce the Ph. D.'s who will become the college language and area teachers of the future.

The need for and interest in language and area studies continues to grow, and the NDEA centers provide unprecedented nationwide resources for such study. The 53 directors of the Language and Area Centers issued a joint statement in 1962, affirming this fact. The statement read in part:

> Title VI . . . has made possible the development of 53 centers in 33 universities, offering instruction in 66 critical languages and related area studies. Each center provides regular courses, frequently through existing university departments, along with specialized library and teaching materials, supplementary lectures, and frequently supporting research. The faculty assembled in these centers, comprising 212 language specialists and 246 specialists in the culture or institutions of the foreign areas, is a national resource of great value. . . . Every dollar of Federal money that supports the centers is matched by a dollar of university funds; in fact universities have spent considerably more than the matching requirement. In this way, Government funds have stimulated the universities to expand their own activities and at the same time to accomplish a task wholly beyond their own resources. Thanks to the . . . way in which title VI of the act has been administered, Government funds have made it possible for the universities to make a major contribution to the Nation's language resources while preserving their own freedom of action and maintaining their own distinctive character.

2. Modern Foreign Language Fellowships

Allocation:
Fiscal 1961: $2,950,000
Fiscal 1962: $3,920,000

Provisions: The U.S. Commissioner of Education may award stipends to graduate students who are preparing for (1) teaching at an institution of higher education in the United States; (2) teaching at an institution of higher education in the United States in another field in which proficiency in the language for which the fellowship is awarded is highly desirable; or (3) employment in a professional or technical activity, governmental or nongovernmental (and nonprofit, nonsectarian), which contributes significantly to the conduct of the Nation's economic, cultural, educational, scientific, social, or political relations and in which proficiency in the language studied under the fellowship is highly desirable. Also authorized are allowances for dependents and for travel to and from the student's place of residence.

THE MODERN FOREIGN LANGUAGE FELLOWSHIP PROGRAM provides financial assistance to qualified graduate students of significant but neglected modern foreign languages and related area studies. Study under these awards must be at or under the supervision of a United States institution of higher education offering appropriate graduate instruction. Although study is not restricted to NDEA Language and Area Centers, about 70 percent of the fellows enroll in the centers.

Students receiving awards in spring 1961 for tenure in academic year 1961–62 totaled 763 and those receiving awards in spring 1962 for tenure in academic year 1962–63 totaled 1,006.[1] The following table shows for both these totals the number of new and of renewed awards, the varying lengths of tenure, and the numbers of languages and institutions involved.

Item	Awarded for tenure in 1961–62	Awarded for tenure in 1962–63
Total fellowships	763	[2] 1,006
New	511	592
Renewed	252	414
Fellowships tenable for academic year	334	481
Fellowships tenable for summer and academic year	321	408
Fellowships tenable for summer	[1] 108	[3] 117
Total number of languages studied	43	58
Number of institutions at which fellowships were held	45	52

[1] Eight of these were for summer plus one semester.
[2] Plus 33 postdoctoral awards.
[3] Three of these were for summer plus one semester.

The total number of fellows trained during the first 4 years of the program (fiscal years 1959 through 1962) was 1,620.[1]

The amount obligated for these awards in fiscal 1961 was $2,803,199; in fiscal 1962 the funds obligated were $3,918,297, which included the sum of $56,053 obligated for a postdoctoral pilot project. Stipends varied with the length of the award, and in the case of awards made in the spring of 1961, averaged $3,647 for fellowships for the entire academic year, $865 for those for the summer only, and $4,584 for the summer and academic year combined. By 1962 these stipends had risen to $3,662 for the academic year, $904 for summer awards, and $4,563 for the summer and academic year combined.

The basic stipend included the cost of tuition and all required fees plus $450 for summer study only, $2,250 for academic year awards, and $2,700 for awards covering summer and academic year programs. Travel allowances were available for travel to and from the fellow's place of residence to the institution in which he was enrolled.

In fiscal 1961 a total of $410,015 was obligated in allowances for the 687 dependents of 355 fellows, an average of 2.3 dependents for each fellow. The total for dependency allowances in fiscal 1962 was increased to $595,050 for 954 dependents of 409 fellows. The average number of dependents remained the same. In fiscal 1961, 230 fellows received allowances for travel in the amount of $48,451, at an average of $210.65. The amount increased in fiscal 1962 to $96,623 for 364 fellows at an average of $265.45.

Of the fellows receiving awards in the spring of 1961, 43 were authorized to spend part or all of the period of their fellowships abroad in different countries. The total cost of these 4 awards was $87,830. Of this group, 5 were engaged in full-time research for the dissertation and 38 were students in regular academic programs abroad sponsored by American universities: 10 at Stanford in Tokyo, 11 at Indiana University's summer workshop in Russia, and 17 at the University of Wisconsin's summer seminar in Brazil. In 1962 the number of fellows authorized to study abroad increased to 76, studying in 16 languages in 17 countries. Of this number, 35 were engaged in dissertation research, and the balance were in group projects sponsored by Stanford in Japan and the Republic of China, Wisconsin in Brazil, and Indiana in Russia. Funds in the amount of $307,150 were obligated for these 76 fellowships.

Approximately 80 percent of both fellows and funds were confined to the 7 languages designated by the U.S. Commissioner of Education as requiring first priority in development: Arabic, Chinese, Hindi-Urdu, Japanese, Portuguese, Russian, and Spanish. Spanish was included in the priority listing following President Kennedy's call for an Alliance for Progress, and 100 fellowships were set aside for this program. In 1961–62 a total of 143 fellows were studying some 37 other critical languages of lesser priority. This number increased in 1962–63 to 237 fellows in 51 languages.

Most of the fellows are preparing for college teaching, either of the language of the award or of related studies for which a knowledge of the language is advantageous. Some 10 percent listed as their career goal service of a public nature in a professional or technical activity where proficiency in the language studied under the fellowship was highly desirable.

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[1] Plus 33 postdoctoral awards.

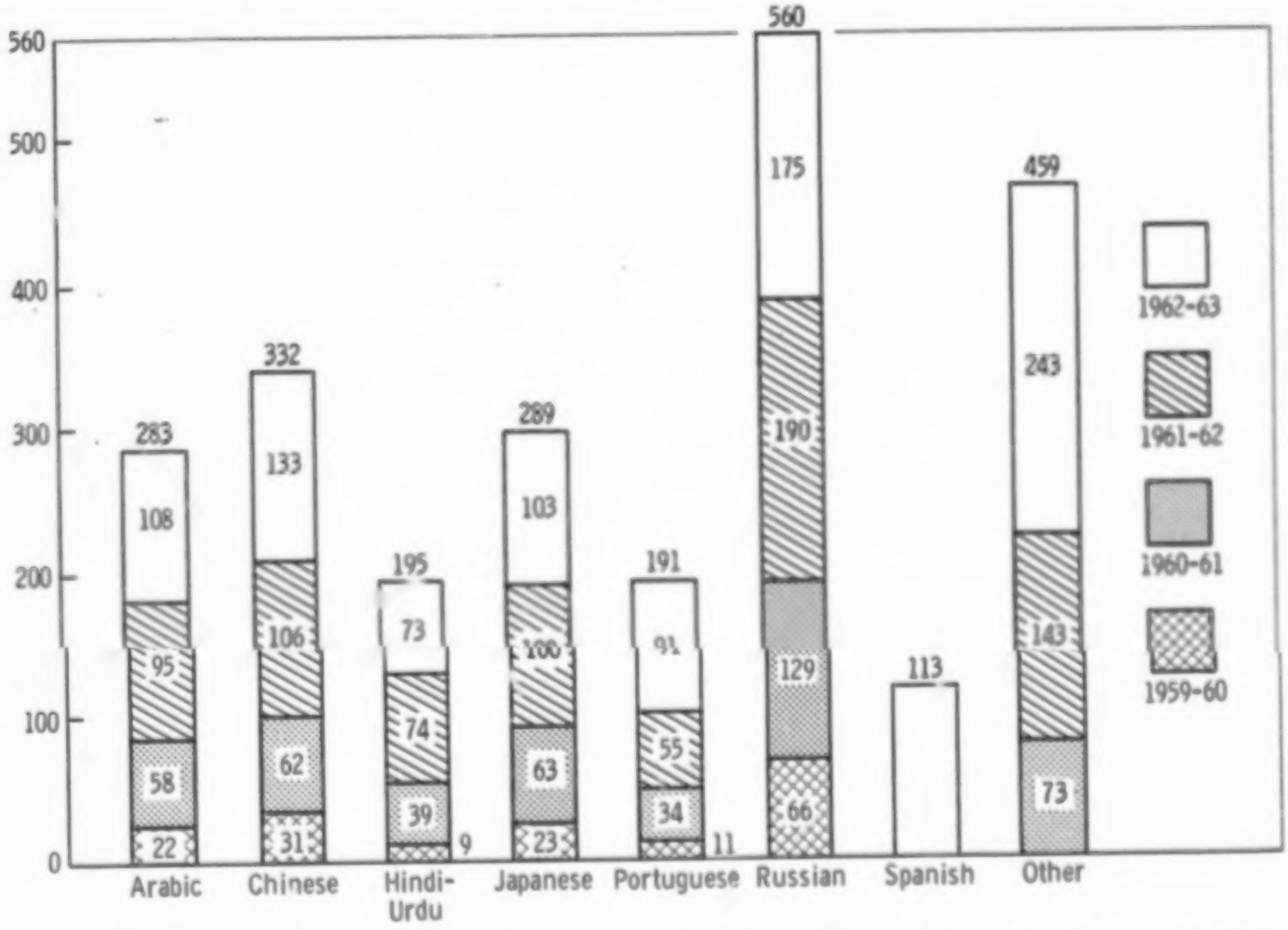


Figure 14.—Title VI (Language Development) Number of modern foreign language fellowships awarded, by language and year: Fiscal years 1959-62.

In order to encourage the study of language by postdoctoral candidates who have an active concern in Latin America or Sub-Saharan Africa, three special pilot projects were introduced in the summer of 1962. Fifteen postdoctoral awards were offered for intensive summer language study of Brazilian Portuguese, a similar number for the Spanish of Latin America, and 10 awards for 1 of 4 Sub-Saharan African languages. Beginners in the language were eligible to apply, and the stipend was increased from the standard $450 based on an 8-week summer program to $1,000 plus the usual amounts for tuition, travel, and dependents' allowances.

The following awards were made: 13 in Spanish, 14 in Portuguese, and 6 in the African languages.

3. Research and Studies

Allocations:

Fiscal 1961: $1, 985, 334
Fiscal 1962: $2, 000, 000

Provisions: The U.S. Commissioner of Education is authorized, directly or by contract, to make studies and surveys to determine the need for increased or improved instruction in modern foreign languages and other fields needed to provide a full understanding of the areas, regions, or countries in which such languages are commonly used; to conduct research on more effective methods of teaching these languages and these fields; and to develop specialized materials for use in such training or in training teachers of these languages or in these fields.

IN FISCAL YEAR 1961, the Office of Education initiated 50 contracts for 46 modern foreign language projects involving research, experimentation, development of specialized instructional materials, and surveys and studies. The total cost of these projects was $1,311,584, of which $797,129 came from 1961 funds and the balance was committed against subsequent fiscal years. In addition, $1,188,205 in fiscal year 1961 funds were paid to continue or complete projects initiated in 1959 or 1960, bringing the cost of the Research and Studies Program for 1961 to $1,985,334.

Forty-two contracts in support of 34 language research and studies projects were negotiated in fiscal year 1962, at a total cost of $1,398,519, of which $737,773 came from 1962 funds, with the balance committed against subsequent fiscal years, subject to the appropriation of the necessary funds by Congress. An additional $1,262,227 in fiscal year 1962 funds was paid to continue 48 projects begun in previous years. The cost of the entire program in 1962 was $2 million, which brought the program's total cost for the first 4 years to $10,420,752. During these 4 years, 195 projects were contracted.

The language research projects fall into four categories: Surveys and studies, methods of instruction, specialized materials for the commonly taught languages (French, German, Italian, Russian, and Spanish), and specialized materials for the "neglected" languages (Arabic, Chinese, Hindi-Urdu, Japanese, Portuguese, and some 120 others).

Of the 46 projects initiated in 1961, 18 were surveys and studies, with a total cost of $260,342 in fiscal year 1961 funds; 4 were in methods of instruction, at a cost of $162,410; 4 were to develop specialized materials for the commonly taught languages, at a cost of $140,937; and 20 were for materials for the "neglected" languages, costing $231,607.

For fiscal year 1962, the number of new projects, by category, and costs in fiscal 1962 funds was as follows: surveys and studies, 11 projects, $158,671; methods of instruction, 2 projects, $123,926; specialized instructional materials for the commonly taught languages, 4 projects, $114,176; and specialized instructional materials for the neglected languages, 17 projects, $341,000. (See tables 34 and 35.) The specialized instructional materials included linguistic analyses of various languages, basic courses, readers, reference grammars, dictionaries, manuals, bibliographies, audio and visual aids for teaching and research, and related cultural and historical material.

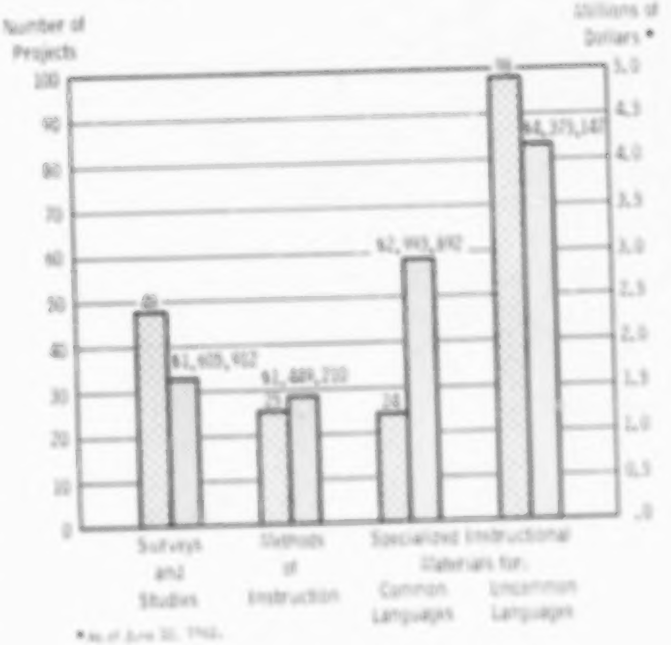


Figure 15.—Title VI (Language Development) Research and Studies: Number of projects contracted, by type and amount of Federal support: Fiscal years 1959–62.

Contracts for projects negotiated in fiscal years 1961 and 1962 were distributed among institutions, educational organizations, and individuals in 20 States and the District of Columbia. Of the 92 contracts, 48 were with colleges and universities, 18 with private individuals, 14 with foundations and similar organizations, 9 with Government agencies, and 3 with public school systems. In several cases two or more contracts were needed to support a single project.

In consideration of proposals to contract for the performance of research and studies for the Language Development Program, the basic criteria applied are (a) appropriateness to the intent of Congress as expressed in section 602 of the National Defense Education Act, (b) relative urgency of need for the proposed work, (c) soundness of plan, and (d) professional competency of the investigators. The advice and counsel of leading scholars and specialists in appropriate fields are sought constantly in the development of the program.

By the end of fiscal year 1962, completed materials had been received from about half of the projects initiated during the first 4 years of the program. These included 57 studies and surveys, 9 reports on methods of instruction, 11 sets of specialized materials for the commonly taught languages (or 15 if each of the 5 languages covered by the "Glastonbury Materials," described below, is counted separately), and 115 sets of materials for the neglected languages. In addition, some 37 articles reporting findings of projects completed or still in progress have been published in educational periodicals.

Many of these projects, particularly those which produced instructional materials, have been far-reaching in scope and influence. For example, a project undertaken by the Glastonbury, Conn., public schools has produced five sets of high-quality instructional materials, based on the "audio-lingual approach," for the five modern foreign languages most commonly taught in United States secondary schools: French, German, Italian, Russian, and Spanish. A group of leading researchers, teachers, and other linguistic and educational authorities developed the materials, which were then tested in the school systems, evaluated at NDEA Language Institutes, revised, and published as the "A-LM" by a commercial firm. Each set is to consist of four levels, suitable for grades 7 through 12 (except for Italian, which does not go beyond Level Two), and is made up of students tests, audio recordings of various types, and teacher guides.

The Level One kits for all five languages were used, beginning in September 1961, by some 123,000 pupils in the Nation's schools. Level Two kits for Spanish, German, French, and Russian were completed for use in September 1962, and a total of about 600,000 students were using the materials by December of that year. Levels Three and Four for Spanish, French, German, and Russian are scheduled for publication and introduction in the schools in 1963 and 1964, respectively.

The "Glastonbury" or "A-LM" materials have had a positive influence on language teaching in the secondary schools. First, more than 10,000 language teachers have attended NDEA Language Institutes where in most cases these materials were used as the basis for advanced training in improved teaching methods. Second, the A-LM materials, by providing an integrated, unbroken sequence of at least 4 years of language instruction lend encouragement to the movement toward longer, more serious courses of language study. Third, at least 5,000 high schools now have foreign language laboratories, most of them installed in the past few years with matching funds made available from title III. These laboratories are effective only if they are provided with adequate recorded materials. The Glastonbury project has met that need. These developments have done much to bring about a widespread acceptance of the speaking-hearing approach to language learning. They are making possible the kinds of curriculum modifications that teachers have been seeking for years, and they promise to improve radically the modern foreign language programs in secondary schools.

In fiscal years 1961 and 1962, the Language Research and Studies Program placed a relatively greater emphasis than during the previous 2 years on developing instructional materials for the uncommonly taught languages. The expansion of instruction and interest in these languages, resulting in part from the support being given by the Language and Area Centers Program (at the graduate level), as well as the increase in the number of teachers of these languages that has come about with the help of the Language Fellowship Program, has created a demand for instructional materials, particularly in Arabic, Chinese, Hindi-Urdu, and Japanese, for use with college undergraduates and, in some cities, for use in the high schools. The need is for basic courses, with recordings, readers, and area manuals for languages heretofore neglected in the United States. Moreover, colleges and universities are showing a growing interest in expanding their curriculums to include undergraduate courses in non-Western civilization. Inevitably they are also introducing courses in the languages spoken in the countries being studied. Projects leading to the development of materials in the uncommon languages for use on the undergraduate level have consequently been given a higher priority than during the early years of the program.

B. Language Institutes

Authorization:
Fiscal 1961: $7,250,000
Fiscal 1962: $7,250,000

Appropriation:
Fiscal 1961: $6,482,687
Fiscal 1962: $7,250,000

Basis: Cost reimbursement under contract. No matching required.

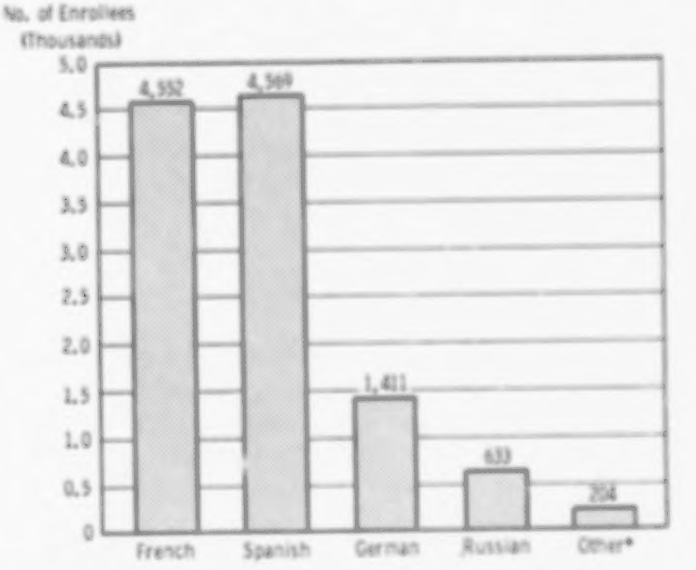
Provisions: Costs of operating both the short-term and regular session institutes are paid from Federal funds. Eligibility to attend is limited to individuals who are engaged in or preparing to engage in teaching, or the supervising or training of teachers of, a modern foreign language in elementary or secondary schools.

Enrollees whose program concerns a *public* school are eligible upon application for a stipend of $75 a week each and an additional $15 a week for each dependent for the period of attendance at the institute. Private school personnel receive no stipends but are eligible to attend without charge.

DURING THE FIRST 4 YEARS of operation, the National Defense Language Institutes Program provided training for nearly one-fifth of the Nation's elementary and secondary school language teachers. By the end of fiscal year 1962, 10,320 teachers had received instruction in new methods of language instruction and had increased their language fluency at 218 Language Institutes conducted at colleges and universities throughout the United States and abroad. Of these enrollees, 961 returned for a second summer of advanced-level institute training, making a total of 11,281 enrollments.

Seventy-five institutes, with 3,756 enrollees, were conducted during the summer of 1961 and academic year 1961–62. Eighty-five institutes were scheduled for summer 1962 and academic year 1962–63, with 4,294 and 119 enrollees, respectively.

The 68 short-term institutes held during the summer of 1961, with 3,595 teachers enrolled, included, for the first time, Chinese, Japanese, and modern Hebrew among the languages offered. Other languages, which had been included previously in the program, were French, German, Italian, Russian, and Spanish. The 161 enrollees in the 7 regular session institutes for academic year 1961–62 studied French, German, Russian, and Spanish. The same languages, except for Japanese and modern Hebrew in the summer and French during the academic year, were offered at the 1962–63 institutes.



* Other languages include: Chinese (54 enrollees), Japanese (20), Italian (93), and modern Hebrew (37).

Figure 16.—Title VI (Language Development) Language Institutes: Number of enrollees, by language: Fiscal years 1959–62.

Of the 8,169 enrollees at these 160 institutes for fiscal years 1961 and 1962, 7,147 were secondary school teachers and 1,022 were teachers in elementary schools. The total number of enrollees in each of the various languages during these 2 years was as follows: Spanish, 3,215; French, 3,373; German, 937; Russian, 469; Italian, 65; Chinese, 53; modern Hebrew, 37; and Japanese, 20.

The cost of the institutes conducted during the summer of 1961 and academic year 1961–62 was $6,259,580, provided from fiscal year 1961 funds; the summer 1962 and academic year 1962–63 institutes cost $7,161,097 in fiscal 1962 funds, bringing the total cost of the program for the first 4 years to $18,114,251.

Qualified teachers attend these institutes with no tuition charge, and enrollees teaching in public schools receive a stipend of $75 per week while attending the institutes, as well as an allowance of $15 per week for each dependent. About 60 percent of the cost of the institutes program is for stipends and 40 percent for direct and indirect costs of operating the institutes.

Twelve of the short-term institutes held during the second 2 years of the program were conducted outside the continental United States, with a total enrollment of 723. These included an institute in German, at Bad Boll, Germany, established in 1960 by Stanford University; one in Spanish at the University of Puerto Rico, Río Piedras, also for the second and third consecutive summers; another, in French at Tours, France (University of Oregon), in the summers of 1961 and 1962; and one in Russian, partly at Moscow, conducted by Indiana University during both summers. A new institute in French was established by Emory University at Besançon, France, in the summer of 1962; in Spanish by the American Institute for Foreign Trade, at Quito, Ecuador; in Spanish by the University of Arizona, at Guadalajara, Mexico; and also in Spanish by Texas Technological College, at Tucumán, Argentina. These institutes offered advanced-level training and were limited to secondary school teachers who had attended at least one NDEA summer language institute in the past.

The goal of each language institute is to offer a closely integrated program of classwork and related activities. Whenever possible, enrollees are required or encouraged to live in language houses, to dine together, and to engage in group social activities, thus creating a foreign language atmosphere even outside the classroom for the duration of the institute.

In addition to increasing the enrollee's level of understanding of both the spoken and written language and the culture of which it is an expression, the institutes also provide training and experience in the use of new teaching methods and instructional materials, particularly in the audio-lingual approach to language teaching which has proven so effective on all educational levels.

Besides giving language teachers valuable experience in the use of these new methods, the institutes have provided an ideal proving ground for the development and evaluation of new teaching materials. The former "Glastonbury (Conn.) Materials" (audio-lingual material for secondary schools) for instance, now being used in commercial form by more than 140,000 secondary school students, were tried and proven at National Defense Language Institutes. Their ready acceptance by teachers has fostered the preparation of other new materials which will fulfill present-day needs in language instruction, in keeping with the intent of the act.

The institutes are also having an important effect on the graduate and teacher-training programs of host institutions. A survey conducted by the Modern Language Association indicated that: (*a*) the institutes have brought colleges and universities into closer contact with local school teachers; (*b*) the institutes have directed the attention of colleges and universities to the problem of teacher training, and, as a result, they are becoming aware of the shortcomings of traditional methods and are reappraising their normal curriculums, both graduate and undergraduate; (*c*) the language staffs of the host institutions, having been exposed to new methods of language teaching in the institutes, have introduced a greater emphasis on audio-lingual procedures into their own language curriculums; and (*d*) as a result of institute experience, college and university staff members have gained an increased sense of professional identity and now participate more actively in professional societies and other activities.

Most important, of course, is the influence of institute training on the elementary and secondary school teachers themselves. Numerous letters which have reached the Language Institute Section from grateful "alumni" of the institutes indicate what the enrollees feel they have gained from their attendance: (*a*) a gratifying increase in language skills and knowledge of subject matter as a result of the institute experience; (*b*) a sense of confidence and renewed enthusiasm in their teaching, resulting in better teaching and more interested students; (*c*) a desire to go on to do advanced work on their own and especially to travel or study in the country whose language the teacher teaches; (*d*) a new awareness of professional obligations, exemplified by attendance at professional meetings, subscribing to professional journals, etc.; and (*e*) an expansion of the effect of the Institutes Program, as those who have had contact with it influence others about them, transmitting a technique and a philosophy to colleagues, administrators, student teachers, and even school board members.

Title VII. Research and Experimentation in More Effective Utilization of Television, Radio, Motion Pictures, and Related Media for Educational Purposes

Authorization:
Fiscal 1961: $5,000,000
Fiscal 1962: $5,000,000

Appropriations:
Fiscal 1961: $4,730,000
Fiscal 1962: $5,000,000

Basis: No matching required

Provisions: Part A provides for research and experimentation, both basic and applied, which are (1) concerned with new educational media and (2) directed toward the benefit of State or local education agencies in the operation of public elementary or secondary schools or of institutions of higher education.

Part B provides for the dissemination of information concerning new educational media. Activities include (1) studies and surveys to determine the need for increased or improved use of new educational media; (2) catalogs, bibliographies, and other materials deemed useful in the encouragement and more effective use of new educational media; and (3) assistance and demonstrations, upon request, to State and local education agencies and to institutions of higher education.

Part C provides for the Advisory Committee on New Educational Media which advises, consults with, and makes recommendations to the U.S. Commissioner of Education on matters relating to the uses of new educational media and on matters of basic policy relating to the administration of the title VII program. The committee also reviews all applications for research grants and proposals for contracts and certifies approval of those which it believes are appropriate to carry out the provisions of title VII.

Grants-in-aid may be made to public or nonprofit agencies, organizations, and individuals; contracts may be negotiated with public or private agencies, organizations, groups, or individuals.

A. Research and Experimentation

IN FISCAL YEAR 1961, the Advisory Committee on New Educational Media reviewed 218 applications for research grants and recommended for support 36 projects in 30 institutions of higher education, 3 nonprofit private agencies, and 3 public agencies, located in 15 different States. In fiscal year 1962, the Committee reviewed 175 research grant applications and recommended for support 34 projects in 23 institutions of higher education, 3 nonprofit private agencies, and 1 State department of education, located in 11 different States and the District of Columbia. The 70 grants approved during these 2 years brought the total number of approved projects since the start of the program to 184, of which 62 have been completed, 20 during fiscal year 1961 and 42 during fiscal year 1962.

In fiscal year 1962, the Advisory Committee recommended that, in addition to continuing support of research through grants, the contract provisions of title VII for research be activated. It had become evident as the program matured that exploration of certain major problems can be implemented more effectively through contracts than through grants-in-aid which are awarded for investigator-initiated projects. As a result, four contracts were entered into for projects in three institutions of higher education and one State department of education.

Of the $9.9 million obligated for research from the beginning of the title VII program through 1962, approximately $3.4 million was obligated for new ($1 million) and continuing ($2.4 million) research grants during fiscal year 1961 and approximately $2.5 million for new ($950,000) and continuing ($1.55 million) research grants and contracts during fiscal year 1962. A complete list of all 1961 and 1962 grants and contracts, by State, will be found in table 45.

Research Programs Under Way

Research under way in fiscal 1961 and 1962 concerned the following topics:

1. The capabilities and role of programed self-instruction in a number of subject areas.
2. The potential of simulators in teacher education and other subject areas (for instance, specially designed projection rooms using film footage to simulate actual classroom situations in teacher education).
3. The effects of using combinations of media and highly skilled teachers as a "man-machine" instructional system.
4. The degree to which the newer media have varying effects on learners' varying abilities.
5. The relationship of media to the psychological process of transfer of learning and to the role of the school as a social organization.
6. The practicality of establishing regional centers for programmatic research into the role of new media in education.

A wide range of new media was under investigation, for the most part in the fields of mathematics, science, and the social and behavioral sciences; however, during fiscal years 1961 and 1962, the major area of emphasis shifted from the medium of television to that of programed instruction and teaching machines. Earlier projects in this new area dealt with the identification of basic program principles; later projects were more concerned with program evaluation and the study of program variables, such as cueing and response, in the construction of programed instruction materials. In addition, there was increased concern for the use of this medium in instruction for special groups, such as the deaf and mentally retarded.

Some questions investigated and findings arrived at through title VII research included:

1. What are the uses of the newer media in teacher education?

Studies conducted at the University of Oklahoma, San Jose State College (Calif.), and the University of Minnesota indicated that television and films can reduce the amount of in-class observation needed in teacher education and can enhance learning through such observation.

At Akron University (Ohio) and Pennsylvania State University research demonstrated that complex teaching skills and concepts can be learned effectively from motion pictures.

The Fontana School District (Calif.) project showed that experienced teachers can benefit professionally from televised observation of other teachers.

Research teams working at Hunter College (N.Y.) and Michigan State University identified means of using television recordings to assist student teachers in improving classroom skills.

2. What is the role of the classroom teacher when newer communications media are used?

The Massachusetts Council for the Public Schools found that televised foreign language programs can assist the teacher who is not fluent in the language, but that instructional television is most effective when the teacher provides appropriate in-class follow-up activities.

Ohio State University reported research findings which demonstrated that the teacher can contribute to the amount students learn from televised science programs, even when the programs cover information which is new to the teacher.

The American Institute for Research demonstrated that programed self-instructional materials in physics, used independently or in combination with television, can relieve the teacher of many routine information-transmission functions, thus freeing him for other instructional responsibilities.

3. How can more effective instructional materials be prepared?

The Metropolitan Pittsburgh Educational Television Station (Pa.) identified means of using student participation during televised instruction to increase learning. This study also indicated that the instructional quality of programs can be improved by revising the programs after pretesting them with small groups of representative students.

4. Can the newer media assist special audiences of students?

The Edward R. Johnstone Center (N.J.), the Partlow State School (Ala.), and Harvard University (Mass.) all contributed to knowledge on the development of programed self-instructional materials for mentally retarded children.

Florence State College (Ala.) demonstrated that television can be used to reduce adult illiteracy.

The Maine State Department of Education demonstrated that television can provide special learning opportunities for gifted students throughout an entire State.

B. Dissemination of Information

Of the $4.2 million obligated for dissemination activities from the beginning of the title VII program through 1962, approximately $1.3 million were obligated for new ($1.2 million) and continuing ($100,000) contracts during fiscal year 1961 and approximately $2.2 million was obligated for new ($1.7 million) and continuing ($500,000) contracts during fiscal year 1962.

Over the 2-year period, these funds permitted the activation of 76 new activities in the following program areas, approved by the Advisory Committee on New Educational Media:

1. Teacher and professional education
2. Administrative, organizational, and economic planning
3. New building and facility planning
4. Development of new materials, devices, and technical standards
5. State, regional, and national planning and pilot services
6. Research encouragement and dissemination

A complete list of all dissemination activities initiated in fiscal years 1961 and 1962, by State, will be found in table 46.

Program Highlights

A single dissemination activity often involves several program areas. Some of the more significant accomplishments were the results of this multi-objective approach, particularly those having to do with making new media materials accessible and available to institutions of higher education, to school systems, and to teachers. Activities of this nature included:

- The preparation of the country's first comprehensive "educational media index," a cross-reference directory of all educational media materials available for instruction, including films, filmstrips, slide sets, teaching machine materials, sets of charts, kinescopes, videotapes, voice recordings, and other instructional resources for a given purpose. Under a title VII contract with Indiana University, plans for establishing this service were developed in fiscal 1961 and implemented in fiscal 1962 through a contract with the Educational Media Council. The directory will consist of 18 volumes with approximately 75,000 annotated entries.
- The establishment in fiscal 1962 of three pilot television materials libraries: a regional library for the Great Plains States at the University of Nebraska; a regional library for the New England States at the Eastern Educational Network, Boston; and a national library at the National Educational Television and Radio Center, New York, to work closely with the regional libraries and to serve States where no pilot regional library exists.
- The publication of the first comprehensive catalog of programed instruction materials available for distribution during the 1962–63 school year. Prepared under a 1962 contract by the Center for Programed Instruction, Inc., New York, the catalog lists more than 122 courses or segments of courses in programed instruction form.
- The issuance during 1962 of a series of status papers under the Technological Development Project of the National Education Association, including a catalog of teaching machines presently on the market and a critical analysis of systems of instruction used in the Armed Forces, industry, and in some institutions of higher education and school systems.

A second series of significant activities cutting across program areas related primarily to the future of educational television in the United States. During fiscal 1962, activities under contract included:

- A comprehensive report in book form by several task forces, under the general direction of Wilbur

Schramm of the Stanford Institute of Communication Research, published under the title "*Educational Television: The Next Ten Years.*" This publication summarizes the thinking of outstanding specialists in the United States in relation to the Nation's needs for better educational television programing, resources and facilities, financing, and operating personnel.

- Major studies: (*a*) by the American Council on Education, to explore problems of copyright, royalty, and compensation of teachers in the educational television field; (*b*) by the National Association of Educational Broadcasters, to study in depth the personnel needs of educational television in the future and to examine the nature of the personnel pool available for new stations; and (*c*) by Brandeis University, to study the present and future economics of educational television.
- A major survey and comprehensive report by the National Association of Educational Broadcasters on new television channels needed for complete nationwide educational coverage.
- A demonstration by the WGBH Educational Foundation (Boston) of the use of FM radio networking to facilitate the conference technique of communication among institutions of higher education, with many major universities in the Northeastern States taking part.

In the area of teacher and professional education, new resources and methods imply new kinds of teacher training and new training programs for specialists. Activities carried out under title VII contracts to explore these included:

- National and regional conferences in fiscal 1961 conducted by the American Association of Colleges for Teacher Education, the National Education Association, and the North Central Association of Colleges and Secondary Schools to consider principles and practices in the use of new media in education and new teacher education and training needs.
- Demonstrations of teacher education by television and related means carried out by the University of Wisconsin and the University of Puerto Rico during fiscal 1961.
- Workshop demonstrations of inservice teacher training in the use of new media conducted by the University of Pittsburgh and the Florida State Department of Education during fiscal 1962.
- A series of seminars in fiscal 1962 to establish content and pattern guidelines for the professional training of teachers and specialists in new media techniques conducted by Alameda State College (Calif.).
- A demonstration of training teachers in service through teacher teams and institutes conducted by the Texas Education Agency during this 2-year period.

State, regional, and national services were emphasized in fiscal 1962 through a variety of activities including the following:

- A study of audience response systems in teaching conducted by the University of Miami, leading to the design of certain facilities for the university's new Communications Building.
- A study of the design required to enable a physical facility to serve a university campus with a coordinated media program. Conducted by Stephens College (Mo.), the findings were applied to the design of that institution's new Learning Center.
- Guideline conferences including: A conference, conducted in cooperation with the American Guidance and Personnel Association, on new media in guidance and personnel work; a national conference, conducted through the University of Nebraska, on new media and extension education; and a regional conference, convened by the Western Interstate Commission on Higher Education, on educational television.

A continuing emphasis under the program was the dissemination of information concerning research carried out under Part A of title VII and by other research groups. This was effected through the following means:

- The establishment during fiscal 1961 at Western Reserve University of a pilot research information service which was expanded in 1962 to include abstracts of all audiovisual research reported in English since 1920. This service will permit researchers to receive on request annotated bibliographies produced by a machine information storage and retrieval system. This was a significant accomplishment in light of the findings of an earlier title VII study by Columbia University reporting that approximately 17 percent of all media research completed was not indexed anywhere and that of some 25 bibliographic reference services studies, none approached complete coverage of research information.
- Exhibits such as one on programed instruction and teaching machines planned by the Center for Programed Instruction during fiscal 1962 for a tour of major professional meetings and conventions in 1963.
- A major film series on communication theory and the educational media prepared under a 1962 title VII contract by Ohio State University.
- U.S. Office of Education reports on title VII research and dissemination activities.

Title VIII. Area Vocational Education Programs

Annual authorization: $15,000,000

Appropriation:

Fiscal 1961: $9,000,000

Fiscal 1962: $12,800,000

Basis: 50–50 matching by State and/or local funds

Provisions: Title VIII amends the Vocational Education Act of 1946 (the George-Barden Act) by the addition of a new title III providing for technical education programs for young people and adults.

To be eligible to participate in this program, a State must include in its State plan a part which (1) designates the State Board for Vocational Education as the sole agency for administration of this part of the plan; (2) provides minimum qualifications for teachers, teacher-trainers, supervisors, directors, and others having responsibilities under the plan; (3) shows the plans, policies, and methods to be followed in carrying out this part of the State plan; (4) provides necessary accounting and budgeting procedures; and (5) provides that the State board will make periodic reports to the U.S. Commissioner of Education.

Funds are allotted to a State in an amount bearing the same ratio to the total sum appropriated for this program as the total amount allotted to the State under title I of the George-Barden Act bears to the total sum appropriated for programs under that title.

Funds may be used for administration, supervision, salaries of teaching and supervisory personnel, instructional supplies and equipment, and certain other essential operating costs for the program.

Payments to States must be used exclusively for training individuals for useful employment as highly skilled technicians in fields necessary for the national defense.

FUNDS in the amount of $7,913,197 in fiscal 1961 and $11,045,347 in fiscal 1962 were paid to 49 States, the District of Columbia and Puerto Rico. The total paid to States and other jurisdictions during the first 4-year period was $27,672,676.

The technical training program has accelerated dramatically over the past 4 years. Enrollments in preparatory programs and extension classes totaled 48,564 in fiscal 1959; 101,279 in fiscal 1960; 122,952 in fiscal 1961; and 148,920 in fiscal 1962. There were 7,596 graduates of preparatory programs in fiscal 1961 and 9,946 in 1962. Analyses of State reports show that 82.9 percent of those available for employment in fiscal 1961 were placed in positions either directly or indirectly related to the fields in which they had been trained. In fiscal 1962, 83.5 percent of those available for employment were so placed.

Federal financial aid for salaries and equipment has sparked legislative action in State after State to build and extend areawide vocational-technical schools offering high school, post high school, and adult extension programs. New construction, vastly improved laboratory facilities, curricula aimed at training for highly skilled work in a diversity of occupational fields, and an upsurge in enrollments have evidenced the impact of NDEA technical training funds.

Enrollments and Participating Schools

The "area program" is specifically designated in title VIII. The number of regional and local institutions, both secondary and post secondary, participating in technical training under title VIII increased from 262 in 1959 to 630 in 1962. Enrollments, by State, in both preparatory and extension programs for 1961 and 1962 are shown in tables 47 and 48.

The following table shows the number of each type of institution offering title VIII programs and enrollment, by program, for the fiscal years 1961 and 1962.

A student in Mechanical Technology working on a design, Kansas State College of Pittsburg, Kans. A sample of work being done with title VIII funds.

Number of schools and enrollment, by type of institution, fiscal years 1961 and 1962

Type of institution	Number of schools		Preparatory enrollment				Extension enrollment		Total enrollment	
			Secondary		Post secondary					
	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962
Comprehensive high school	168	193	3,654	4,478	947	1,227	14,160	16,952	18,761	22,657
Technical high school	49	43	4,988	4,236	980	1,332	8,494	11,567	14,462	17,135
Vocational or trade school	106	74	1,316	959	5,088	2,927	8,806	7,813	15,210	11,699
Area vocational-technical school	66	125	1,432	2,828	3,035	5,004	9,494	12,172	13,961	20,004
Technical institute	25	27	108	97	1,720	5,795	9,547	4,079	11,375	9,971
Commercial or junior college	126	129	250	356	13,493	21,902	28,844	37,356	42,587	59,614
4-year colleges	17	26	21	0	1,809	1,476	3,692	5,447	5,522	6,923
State Board for Vocational Education	13	13	9	74	374	380	691	463	1,074	917
Total	570	630	11,778	13,028	27,446	40,043	83,728	95,849	122,952	148,920

Figure 17 illustrates the increase in total enrollments in programs and courses since 1959, the first year the program operated.

Placements

The first group of technicians graduated from 2-year preparatory title VIII curriculums in June 1961, and the second group in June 1962.

Analysis of State reports shows the following placement rates for the two groups:

Availability of graduates	FY 1961	FY 1962
Number of graduates	7,596	9,786
Number not available for placement:		
Number continuing their education	1,194	2,247
Number entering Armed Forces	678	678
Other reasons	152	409
Total	2,024	3,334
Number available for placement:		
Placed in field of training	4,171	5,079
Placed in related field	483	484
Placed in nonrelated field	358	412
Number unemployed	113	146
Status unknown	447	331
Total	5,572	6,452

Salary range of graduates placed in their field of training—

Average		*High*		*Low*	
1961	$4,400	1961	$7,200	1961	$2,950
1962	4,645	1962	7,300	1962	2,400

In addition to the graduate placements, one State reported in 1961 that 600 of its students were placed in data processing occupations before they graduated. Since then, data processing graduates have been in increasing demand across the country. Other typical illustrations of placement opportunities follow:

- Boise Junior College, Idaho, has standing offers from the Hanford atomic installation for the graduates of the mechanical drafting and design program.
- Industries in the Southwest are competing for graduates of the electronic program on the campus of Highlands University in Las Vegas, N. Mex.
- Graduates of the highway technology program at the Vermont Agricultural and Technical Institute at Randolph Center find their services in demand by private contractors and State highway departments in the New England States.

Nature of Programs

In addition to the variety of occupational fields for which training is offered under title VIII, plastics, optics, and, most recently, nucleonics, have received growing attention in several States, in the last 2 years.

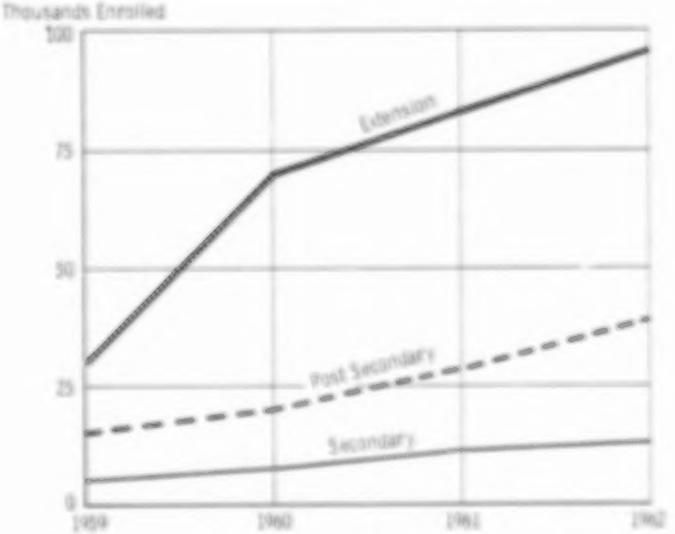


Figure 17.—Title VIII (Area Vocational Education Programs) Increase in enrollment in secondary and post secondary preparatory programs and extension courses under title VIII: Fiscal years 1959–62.

As tables 47 and 48 show, a sizeable part of the title VIII training occurred in post secondary public technical institutes and junior colleges, and in municipal and State colleges offering organized technical curriculums. The quality of this technical training at all these levels was consistently high, and the academic prerequisites for admission were stringent. Entering students had to have physical sciences, mathematics, and English, although exact requirements varied with the technical fields.

Post secondary title VIII programs differ from the first 2 years of college work leading to the baccalaureate degree. These programs are designed specifically to meet a new and growing need for a semiprofessional corps of workers to support professional engineers and scientists.

In addition to the 2-year preparatory programs, a wide range of technical extension courses were offered. Adult enrollments in special technical courses were notably high, reflecting the increasing need of technical workers for advanced study to keep pace with technological change.

Needs and Services

The interest of the States and communities in technical education was evidenced by their contributions to the title VIII program. On a national average, the States and communities overmatched Federal dollars by about 1.3 to 1, even though the program was relatively new. State-by-State breakdowns of expenditures for fiscal 1961 and 1962 by source of revenue, are shown in tables 49 and 50.

The most serious deterrent to more rapid expansion of technical education programs is the shortage of instructional facilities. Title VIII does not provide funds for building classrooms. Several States, however, have undertaken construction programs. Most notable among them are California, Connecticut, Georgia, North Carolina, and South Carolina.

Many States reported that the recruitment of full-time instructors for day preparatory programs continued to present problems, mainly because qualified instructors are attracted to better paying positions with industry. However, most States noted that the recruitment of highly qualified instructors for evening preparatory and extension programs was not unduly difficult. This shortage of teachers is further aggravated by the lack of technical teacher-training services. Solutions to this problem were aired nationally in a series of regional conferences conducted by the Office of Education in 1961 and in 1962.

Recognizing that curriculum materials would be needed to plan technical education programs, the Office of Education, developed and made available to the States a series of publications. Those published during fiscal 1961 and 1962 include:

> *Determining Requirements for Development of Technical Abilities through Extension Courses*
>
> *Mechanical Technology—Design and Production.* Job Descriptions and Suggested Techniques for Determining Courses of Study in Vocational Education Programs
>
> *Occupational Criteria and Preparatory Curriculum Patterns in Technical Education Programs*
>
> *Chemical and Metallurgical Technologies.* Job Descriptions and Suggested Techniques for Determining Courses of Study in Vocational Education Programs
>
> *Achieving Quality in Technical Education.* A Report of Seven Regional Conferences on Programs Operating under Title VIII, NDEA, Spring 1961
>
> *Improving the Organization and Operation of Technical Education Programs.* A Report of Seven Regional Conferences on Programs Operating under Title VIII, NDEA, Spring 1962

Other publications also available are:

> *Electronic Data Processing Technology.* A Suggested 2-Year Post High School Curriculum
>
> *Civil and Highway Technology.* Suggested Techniques for Determining Courses of Study in Vocational Education Programs

The Office of Education continued in fiscal 1961 and 1962 to provide the States with consultative services and to assist them in program development. The staff also aided in developing working relations between State and local vocational educators and between State and local employment service offices.

Other special services performed in fiscal 1961 and 1962 included the following activities:

- Cooperation with the Bureau of Employment Security, U.S. Department of Labor, to develop aptitude tests for selecting students for title VIII programs.
- Help in arranging for recruitment of military retirees and others as teachers in technical education.
- Continuing liaison with representatives of organized labor and industry to explore and evaluate ways by which the title VIII program may best train highly skilled craftsmen for more complex technical operations.
- Work with the Panel on Technician Training, Office of Emergency Planning, on plans for the further development of technical education.
- Provision of advisory aid to the Bureau of Labor Statistics, U.S. Department of Labor, in preparation of the technician training section of the publication *Occupational Outlook Handbook*.
- Assistance to the U.S. Agency for International Development in orienting visiting foreign technical educators.

Cooperation with Industry

Efforts by many States to attract new industries, coupled with industry's interest in effective vocational education facilities for the training of technical workers, have stimulated the technical education program. Many States reported excellent relations between the schools and industry in organizing and operating these programs. Advisory and consultative committees, composed of representatives of management and labor and functioning at State and local levels, rendered invaluable aid in assisting with curriculum construction and other phases of the program. In California, for example, the Bay Area Council for Electronics Education provided considerable assistance to the schools and school advisory committees in developing electronics programs. In Minnesota, personnel at the Minneapolis Area School worked closely with the Twin Cities section of the Instrument Society of America in the development of a 2-year curriculum in instrumentation to meet the needs of industries in the area.

Research in industry leads to new materials, processes, products which in turn cause continual occupational changes. Consequently workers need continuous study to keep up to date. If workers are to keep pace with these changes, adult training of the kind provided under title VIII must be accelerated in amount and variety for the even more rapid changes predicted for the years ahead.

Title X (Section 1009). Improvement of Statistical Services of State Education Agencies

Authorization:
Fiscal 1961: $2,750,000
Fiscal 1962: $2,750,000

Grants from appropriation:
Fiscal 1961: $1,299,806
Fiscal 1962: $1,482,452

Basis: Grants to States equal to one-half the cost (not to exceed $50,000) of new, added, or expanded State programs for the improvement of statistical services.

Provisions: Each State education agency to participate must have an approved State plan setting forth proposed, new, added, or expanded programs to carry out the purposes of section 1009, including: (1) Improving the collection, analysis, and reporting of statistical data supplied by local education units; (2) developing accounting and reporting manuals to serve as guides for local education units; (3) conducting conferences and training for personnel of local education units and of periodic reviews and evaluation of the program for records and reports; (4) improving methods for obtaining from other State agencies education data not collected by the State education agency; and (5) expediting the processing and reporting of statistical data through installation and operation of mechanical equipment. In addition, the plan must state: (1) The general policies to be followed in administration of the plan; (2) that the State education agency will be the sole agency for administering the plan; (3) that this agency will make certain necessary reports to the U.S. Commissioner of Education; and (4) that proper fiscal control and fund accounting procedures will be followed. Semiannual payments based on estimated costs of the State programs are advanced to the State education agencies.

IN FISCAL 1961, 45 State education agencies requested and received a total of $1,299,806 for the improvement and expansion of statistical services (see table 51). Thirteen States received the maximum authorized amount of $50,000 in Federal funds. In fiscal 1962, 46 State education agencies received $1,482,452 for these purposes, with 16 receiving the maximum amount of $50,000.

Since the first year of this program the number of participating States and territories increased from 29 to 45, a 55 percent increase, by fiscal 1961 and from 29 to 46, a 59 percent increase, by fiscal 1962. (See table 51 for amounts of State and Federal expenditures, by State, for fiscal 1961 and and fiscal 1962.) The difference between the Federal monies requested by the States and the Federal share of the expenditure was due principally to difficulties experienced by the States in obtaining State matching funds, and in finding, employing, and retaining statistical personnel.

The activities undertaken by the State education agencies to improve and expand their statistical services can be grouped in the following seven major categories:

1. *Continuing evaluation of statistical services.*—The original evaluation of existing statistical services made by each participating State education agency, either as a part of the original State plan or as an activity to be completed by the State during the initial implementation of the plan, provided a framework for a continuing evaluation of the statistical services program of the agency. As the States proceeded to improve and expand their statistical services, the necessity to review their progress in the light of an optimum program of such services became apparent. This continuing evaluation helped the State agencies to advance their statistical improvement and expansion programs.

2. *Improvement of organization for statistical services.*—As a result of the continuing evaluation of statistical services, many States saw the need for redefining and clarifying their responsibilities

and procedures for collecting, verifying, processing, interpreting, and disseminating statistical information, in order to minimize burdens on the suppliers of information, give maximum assistance to education specialists in the agency, and provide a service of maximum value to users of educational statistics outside the agency. Studies undertaken on these lines generally stressed the importance of a centralized organization for the provision of statistical services. As a result, a number of States set up special units which are generally responsible for providing such services to the entire staff of the State education agency.

3. *Addition of personnel for statistical services.*—The emphasis on staffing for the improvement and expansion of statistical services can be seen in the increased number of State education agency personnel employed for statistical services as of June 30, 1961 (589), and June 30, 1962 (675), compared with the number so employed before title X (266). The largest single category of expenditures was for salaries. (See table 52.)

4. *Improvement of the recording and reporting of statistics.*—Funds available under the title X program made it possible for State agencies to work closely with local school systems in improving the accuracy of recording and reporting statistical information. To effect this improvement, a continuing effort is being made to achieve increased comparability of data, as exemplified by the widespread attention to the adoption and use of specific items contained in the nationally developed handbooks of standard terminology and units of measure. To this end, State agency staff members developed manuals, State handbooks, and improved recording and reporting forms; conducted conferences and workshops for intermediate and local public school system personnel concerning the implementation of new and improved records systems; and provided individual consultative and technical services to intermediate and local school systems concerning the accurate recording and reporting of specific information.

5. *Improvement of the verification, processing, storage, and retrieval of statistics.*—The title X program has materially assisted the State in the development of a complete data flow system covering the collection, verification, processing, storage, and retrieval of statistical information. Basic to this approach has been the use of automatic data processing machines.

From fiscal 1961 to fiscal 1962, four additional State education agencies started to use mechanical computers for the processing of statistical data (see table 53 for the location, ownership, and rental of this equipment). Seven areas of statistical services in which such equipment was used by these agencies in fiscal 1962 were (1) employed personnel (in 44 States), (2) pupil personnel (in 44 States), (3) school finances (in 38 States), (4) research and information services (in 37 States), (5) specialized services (in 31 States), (6) curriculum and program study (in 23 States), and (7) school facilities (in 27 States).

6. *Improvement of the analysis and interpretation of statistics.*—State education agencies have long recognized the need for more complete analysis and interpretation of the basic data they collect. By providing increased assistance for the collection, verification, and processing of statistical information, the States, through their title X programs, relieved their education specialists of much of their former tedious but necessary work and so enabled them to devote more time to the important tasks of interpreting the information, drawing conclusions, and stating implications. Thus, the participating States were able to make more sophisticated and more complete use of their collected information.

7. *Improvement of the dissemination of statistics.*—The use of up-to-date, pertinent information to improve individual, group, and community understanding of education, with the consequent potential improvement of education, is the goal toward which all State education agencies strive.

One of the major problems in the achievement of this goal has been the time generally required for publishing State reports. Many State education agencies reduced this time from a matter of many months to that of a few days, by the purchase and operation of their own offset printing and publishing equipment.

In addition to the development of their own publications units under title X, many State education agencies employed the services of specialists in the field of visual presentation, so that charts, graphs, filmstrips, and transparencies of statistical information could be made. Such presentation of statistical data clarifies relationships and interpretations that must be grasped and understood. The emphasis being given by the State education agencies to the dissemination of statistical information is shown by the fact that 8.5 percent of the expenditures under this program in 1961 and 9 percent in 1962 were for the printing and publishing of statistical information.

Some Major Problems

The progress made so far indicates that the State education agencies are willing and anxious to improve statistical services as rapidly as possible. It would be unrealistic, however, to ignore certain impediments to further progress. Fiscal year 1961 and 1962 annual reports from the participating States pointed up the following major problems:

1. Difficulty in securing adequate matching funds.
2. Multiplicity of local school districts. This not only adds to the sheer volume of educational data, but, because of the large number of small school districts, involves the use of inadequately trained personnel for recording and reporting such data.
3. Inadequacy of staff at the State level in terms of both quality and quantity, to handle the collection, processing, and analysis of data. One of the most difficult problems facing the States is that of finding and retaining personnel of high quality. As State agency personnel gain skill and experience in statistical services, they frequently leave the education agency for better paying positions in public school districts, universities, and private industry. The States must be able to pay higher salaries for statistical services personnel, if they are to attract and retain individuals of high quality in this expanding program.
4. Difficulty in coordinating all the various divisions of the State education agency in order to eliminate duplication in the reports required from the local school districts.

In addition to these problems, the participating States consistently indicated needs for the following activities, which are pertinent to the program of the U.S. Office of Education:

1. National and regional conferences aimed at clarifying and integrating systems and procedures for data collection, and at the cooperative identification and solution of problems.
2. Increased assistance in the implementation of the cooperatively developed handbooks, in order that data may be comparable from State to State and for national summaries.
3. Systematic periodic indication from the Office of Education of the specific data it needs, and assurance that survey forms sent out from the Office will limit requests to the items indicated.

The principle of cooperation and shared responsibility is paramount in any program of information services in education. The development of standardized terminology and definitions through the past 10 years is an example of such cooperation. This, however, is only a portion of the task. Full implementation can be achieved only when the suppliers can furnish information according to standardized terminology and when the collectors use the same terminology in their requests for information.

It is evident that, in spite of the problems and needs indicated here, State education agencies are rapidly adapting modern technological developments to the processing and even to the transmission of educational information. Resources at the national level should be such that educational data, when collected, can be promptly processed, analyzed, and disseminated.

Continued expansion of cooperative efforts and resources at all levels—local, State, and national—should result in an improved flow of timely statistics essential to educational evaluation and planning.

Title X (Section 1001(d)). Survey of Federal Programs in Higher Education

Provisions: The Secretary shall advise and consult with the heads of departments and agencies of the Federal Government responsible for the administration of scholarship, fellowship, or other educational programs with a view to securing full information concerning all specialized scholarship, fellowship, or other educational programs administered by or under any such department or agency and to developing policies and procedures which will strengthen the educational programs and objectives of the institutions of higher education utilized for such purposes by any such department or agency.

THE NUMBER and volume of Federal programs that involve the specialized resources of colleges and universities have been growing to meet new demands for the development of technical and professional manpower, for creative research and invention, and for that broad-based and advancing measure of general and technical intelligence required to maintain national security and the capacity for self-government. Because of their size and complexity, it is important to have comprehensive information about the nature and range of federally sponsored programs and to assess their impact on the development of the Nation's higher education resources.

The U.S. Commissioner of Education in 1960 appointed Dr. J. Kenneth Little, professor of education at the University of Wisconsin and associate director of the Committee on Institutional Cooperation of the Big Ten Universities and the University of Chicago, to be director of a survey of Federal programs in higher education. The Commissioner also appointed a 12-member advisory committee with four representatives from each of the fields of natural science, social science, and the humanities. (See p. 59, appendix A.)

The survey, a major attempt to gather extensive data on the Federal involvement in higher education and to assess the future of Federal activity in this area, consisted of three parts: (1) A description of the Federal programs and the characteristics and relative involvement of participating institutions; (2) a study of the effect of such programs on higher education; and (3) observations, conclusions, and recommendations concerning future Federal programs in higher education.

The first part, a report on Federal programs and participating institutions, analyzes the activities of the various agencies by the following categories: (1) Financial assistance to students, (2) loans and grants to institutions for capital improvement, (3) contracts and grants-in-aid for research, (4) the support of training and instructional programs, and (5) the participation of colleges and universities in international programs. It shows the relative and aggregate magnitude of the different agencies' programs for each activity. The report also lists the participating colleges and universities, indicates their number, type (private, public, junior college, university, etc.), and geographic location. The data for the report were gathered from Federal agencies and departments.

Perhaps the most difficult and important task of the survey was assessment of the impact of Federal programs on institutions of higher education. For this part of the survey, the Office of Education contracted with the Brookings Institution for an independent evaluation of this impact. The Brookings study was addressed to three issues: (1) What have been the effects of Federal programs upon the quality of higher education, particularly at the undergraduate level? (2) To what extent can or should fuller use be made of institutions not heavily involved in present Federal programs? (3) What has been the experience of institutions with the administration of Federal programs? This study included 12 universities heavily involved in federally sponsored programs, 12 universities with considerably less involvement, and 12 undergraduate colleges with comparatively slight involvement. More than 400 persons were interviewed at 32 of these institutions and 3,500 full-time faculty members responded to questionnaires. Statistical information was provided by the institutions, private agencies, and the Federal Government.

The report on this inquiry is based on a comparison of three types of institutions and three types of liberal arts disciplines (the sciences, the social sciences, and the humanities) chosen for their importance and the range of educational situations exemplified—not for their statistical representativeness.

The third part of the survey report consists of the director's conclusions and recommendations for "policies and procedures which will strengthen the educational programs and objectives of the institutions of higher education" involved in Federal programs.

Both a summary and final report of the survey were scheduled for publication in fiscal year 1963 as OE-50033 and OE-50034. Some of Dr. Little's findings are excerpted below.

Observations in the Summary

More than 15 different Federal departments and agencies conduct major programs involving higher education institutions, under several different legislative and executive directives. There is no single coordinating agency for the many Federal programs involving these institutions.

The relationship of the Federal Government to institutions of higher education falls into two major patterns: (*a*) Federal-State cooperation, as exemplified by the land-grant college aid to "agriculture and the mechanical arts;" and (*b*) Federal-institutional cooperation, in which both public and private institutions have contracts, loans, and grants for research, services, facilities and training.

Federal programs are administered with the advice of hundreds of specialists drawn from colleges and universities to serve on advisory panels or committees.

No Federal program provides general unrestricted aid to institutions of higher education. Federal programs are usually designed to further advances in agriculture, science, health, or foreign affairs; to provide for common defense; or to give financial assistance to students, rather than to assist educational institutions as such.

Federal programs emphasize research and graduate education. Between 1955 and 1960, about 75 percent of all Federal income reported by colleges and universities was for research and development.

Funds for each type of Federal activity are largely concentrated within 100 institutions. For example, 100 institutions in 1959 received more than 93 percent of the funds for research programs, graduate fellowships, and grants for facilities and equipment; these 100 institutions received 88 percent of the funds in the "education and training" category.

There are few federally sponsored programs in which most of the Nation's accredited colleges and universities (approximately 2,000 in 1959) participate. One of these, the NDEA student loan program, in 1959 involved more than 1,400, or about 70 percent of the institutions. Another, the program of loans for construction of student housing and other nonacademic facilities for students has involved more than 600 institutions. However, the number of colleges and universities participating in research programs in 1959 was less than 500, and the same was true of institutional participation in education and training programs. Fewer than 300 institutions received assistance in the form of loans or grants for the construction of research facilities, for specialized equipment, in the form of Federal surplus real property. (Not all accredited institutions of higher education in the Nation are able to participate in many of the Federal programs. For example, only the approximately 200 institutions which offer the doctorate have the resources for extensive research.)

Participation in Federal programs classified as research or education and training is related to the level of the degrees that the institutions award. Of the 2- or 3-year colleges that offer less than a bachelor's degree, fewer than 1 percent participated in these types of programs in 1959; 25 percent of the colleges awarding the bachelor's as their highest degree participated; 47 percent of the institutions awarding the master's as their highest degree; and 95 percent of those awarding doctoral degrees.

Public and private institutions participate almost equally in Federal programs in higher education. The 100 major participants, as measured by total Federal income in 1960, included 54 public and 46 private institutions.

Conclusions in the Summary

Dr. Little concludes that the basic need for improvement in Federal activity is in the formulation of general policy and the provision of information about the programs. The administration of programs should remain with the agencies responsible for specific missions and should not be centralized. Consideration should be given, however, to the coordination of programs so they do not work at cross purposes but rather reinforce each other. The fresh Federal interest expressed by the enactment of the National Defense Education Act, and the growing perception of the importance of educational institutions in achieving national goals, all furnish signs that new and stronger recognition of education is developing in the legislative and administrative arrangements of the Federal Government. There are also efforts within the circles of higher education to provide a more effective coordination of the efforts of their spokesmen on issues of concern to all institutions.

The Federal Government needs a mechanism for providing a general overview of its numerous programs scattered among many departments and agencies. There is strong opposition among both university and Federal administrators to arrangements which would centralize the administration of Federal programs in higher education in a single agency. There is, however, general support for an arrangement which would yield the following benefits:

1. A centralized information service concerning Federal activities.
2. Continuous and perceptive review of the panorama of federally sponsored programs.
3. Comprehensive, systematic, and reliable nationwide studies of major trends and conditions affecting or likely to affect the welfare of the Nation's colleges and universities.
4. Nationwide comprehensive studies of the factors affecting full realization of educational opportunity among American youth; the supply of college teachers, including the migration of faculty members; the recruitment of prospective college teachers; and other factors affecting the quality of institutions of all types.

The Department of Health, Education, and Welfare is the natural center for this kind of activity. It now reaches colleges and universities with a wider front of educational programs and with a broader base of interest and experience than those reached by any other Federal department or agency. This Department, however, has not established itself as one to which the academic community turns for assistance in understanding or guiding Federal policy and programing in higher education. The Department's principal component in education, the Office of Education, has too long been identified in the minds of the academic community with the problems of professional educators more than with the interests of the academic disciplines, with the aspirations of administrators more than the purposes of professors, with service to education associations and groups more than with the general concern of all with broad educational problems.

Recommendations in the Summary

Dr. Little recommends—

That the Department of Health, Education, and Welfare, through its Office of Education, give continuing consideration to the problems and policies studied in this Survey of Federal Programs in Higher Education.

That the Department strengthen itself and the Office of Education, through appropriate organizational and staffing patterns, as a center within the Federal Government through which overall problems and policies in higher education may be considered with effective participation by representatives of all Federal departments, agencies, and branches; by institutions of higher education and their related associations, societies, and councils; and by citizen groups.

That the responsibilities for developing Federal policies and procedures to strengthen the Nation's resources in higher education be carried on in consultation with a standing committee or council of advisors who have national stature and whose understanding of higher education and its role in our society is commensurate with the importance of wise solutions to the Nation's educational problems.

The director further recommends—

That the Office of Education continue to provide information of the type developed in this Survey of Federal Programs in Higher Education with such modifications as seem desirable. The incorporation of financial data such as that now provided in the Office of Education publication *Federal Funds for Education* is recommended, as is the addition of more complete information on inservice training programs for Federal employees, both military and civilian.

That the Office of Education develop additional studies of the impact of Federal policies and programs on higher education, such as a study of Federal tax policies affecting higher education.

That the Office of Education develop new statistical studies to provide nationwide information on the following topics (data to be collected from the institutions of higher education):

1. *Migration of faculty members.*—Annual data on faculty arrivals and departures, by field, with notation of the position left or assumed, whether in college or university, nonacademic position, retirement, or whatever activity.

2. *Subvention of graduate students.*—Data, by institution and field, on the costs of graduate study to students; the number of graduate students holding fellowships, traineeships, assistantships, or other positions with financial aid; and the amounts of this assistance. Data on student support should indicate the source of support, i.e., Federal Government, State government, foundation, or institution.

3. *Support of international education programs.*—Data, by institution, on the funds and personnel involved in educational programs overseas, both Government- and non-Government-supported.

That the Office of Education direct more of its statistical study to illuminate important policy questions in higher education. The Office now supplies much detailed and valuable information that is organized primarily for reference. More data should be collected, however, that specifically relate to significant educational issues and problems, for example, State-by-State information on the availability and need for student assistance.

Appendix A

Advisory Committees

The advisory committees for titles IV, V–B, VI, VII, and X appointed under the provisions of the act to advise and consult with the Commissioner concerning the administration of the provisions of these titles for which he is responsible, have rendered invaluable service during 1961–62 (*) and 1962–63 (**), or, in some instances, for both years (***). The committees and their members follow:

Advisory Committee on the National Defense Graduate Fellowship Program, NDEA, Title IV, Section 1002(a).

HUMANITIES

**John W. Ashton, *Dean, Graduate School, Indiana University*

*Alexander Heard, *Dean, Graduate School, University of North Carolina (Appointment ending 1961–62)*

**Harold Howe, *Dean, Graduate School, Kansas State University*

***Anne Thomas Pannell, *President, Sweet Briar College (Virginia)*

*David L. Patrick, *Coordinator of Research, University of Arizona (Appointment ending 1961–62)*

***Harold W. Stoke, *President, Queens College (New York)*

ENGINEERING, MATHEMATICS OR SCIENCE

**A. Adrian Albert, *Dean, Division of the Physical Sciences, University of Chicago*

***Henry E. Bent, *Dean, Graduate School, University of Missouri*

***Richard G. Folsom, *President, Rensselaer Polytechnic Institute (N.Y.)*

*Robert W. MacVicar, *Dean, Graduate School, Oklahoma State University (Appointment ending 1961–62)*

***The Rev. Joseph F. Mulligan, S. J., *Chairman, Department of Physics, Fordham University (New York)*

OTHER FIELDS

***Felton G. Clark, *President, Southern University and Agricultural and Mechanical College (Louisiana)*

***Frank G. Dickey, *President, University of Kentucky*

***W. Gordon Whaley, *Dean, Graduate School, University of Texas*

***Lloyd S. Woodburne, *Professor, Department of Psychology, University of Washington*

Advisory Committee for the National Defense Counseling and Guidance Institutes Program, NDEA, Title V(B), Section 1002(a)

Humanities

Anna L. Rose Hawkes, *President, American Association of University Women, Washington, D.C.*

Edward S. Noyes, *Acting President, College Entrance Examination Board, New York, N.Y.*

Engineering, Mathematics, or Science

Carroll Newsom, *Vice President, Prentice-Hall, Inc., Englewood Cliffs, N.J.*

B. Alden Thresher, *Director of Admissions, Massachusetts Institute of Technology, Cambridge*

E. G. Williamson, *Dean of Students, University of Minnesota, Minneapolis*

Dael Wolfle, *Administrative Secretary, American Association for the Advancement of Science, Washington, D.C.*

Other Fields

Clifford E. Erickson, *Provost, Michigan State University of Agriculture and Applied Science, East Lansing*

James D. Logsdon, *Superintendent, Thornton Township High School and Junior College, Harvey, Ill.*

James Madison Nabrit, Jr., *President, Howard University, Washington, D.C.*

Advisory Committee for the Language Development Program, NDEA, Title VI

James B. Conant, *588 Fifth Avenue, New York, N.Y.*

G. Homer Durham, *President, University of Arizona, Tempe*

Grace E. Gardner, *National Education Association, Classroom Representative on U.S. National Commission for UNESCO, Southwest Missouri State College, Springfield*

Richard H. Heindel, *President, Wagner College, Staten Island, N.Y.*

Harold Boles Hoskins, *Director, Foreign Service Institute, U.S. Department of State, Washington, D.C.*

Francis Keppel, *Dean, Faculty of Education, Harvard University, Cambridge, Mass.*

Samuel M. Nabrit, *President, Texas Southern University, Houston*

William Riley Parker, *Department of English, Indiana University, Bloomington*

John R. Richards, *Chancellor, Oregon State System of Higher Education, Eugene*

George Winchester Stone, Jr., *Executive Secretary, Modern Language Association, New York, N.Y.*

M. H. Trytten, *Director, Office of Scientific Personnel, National Academy of Sciences—National Research Council, Washington, D.C.*

Jerrold R. Zacharias, *Professor of Physics, Massachusetts Institute of Technology, Cambridge*

Advisory Committee on New Educational Media, NDEA, Title VII
Fiscal Year 1961

Sterling M. McMurrin, *Chairman, U.S. Commissioner of Education*

Margaret Divizia, *Head Supervisor, Audio-Visual Section, Los Angeles Public Schools, Los Angeles, Calif.*

C. Scott Fletcher, *President, The Fund for Adult Education, White Plains, N.Y.*

Leland Hazard, *Pittsburgh Plate Glass Co., Pittsburgh, Pa.*

Frederick Hovde, *President, Purdue University, Lafayette, Ind.*

Armand L. Hunter, *Director, Division of Broadcasting Services, Michigan State University, East Lansing, Mich.*

L. C. Larson, *Director, Audio-Visual Center, Indiana University, Bloomington, Ind.*

Ralph E. McGill, *Editor,* Atlanta Constitution, *Atlanta, Ga.*

Austin Meadows, *Assistant State Superintendent of Education, Montgomery, Ala.*

Wanda Mitchell, *Television Project, Evanston Township High School, Evanston, Ill.*

Howard Nostrand, *Executive Officer, Department of Languages and Literature, University of Washington, Seattle, Wash.*

Arthur Roe, *Head, Course Content Improvement Section, Division of Scientific Personnel and Education, National Science Foundation, Washington, D.C.*

The Very Rev. Robert J. Slavin, *President, Providence College, Providence, R.I.*

William E. Spaulding, *President, Houghton Mifflin Co., Boston, Mass.*

Fiscal Year 1962

Sterling M. McMurrin, *Chairman, U.S. Commissioner of Education*

Marion P. Abramson, *3322 Jefferson Avenue, New Orleans, La.*

John B. Carroll, *Professor of Education, Harvard University, Cambridge, Mass.*

John E. Codwell, *Principal, Jack Yates Senior High School, Houston, Tex.*

Margaret Divizia, *Administrator, Instructional Aids and Services, Los Angeles City Schools, Los Angeles, Calif.*

John Gardner,[2] *President, Carnegie Corporation of New York, New York, N.Y.*

Leland Hazard,[1] *Pittsburgh Plate Glass Co., Pittsburgh, Pa.*

Armand L. Hunter, *Director, Division of Broadcasting Services, Michigan State University, East Lansing, Mich.*

L. C. Larson, *Director, Audio-Visual Center, Indiana University, Bloomington, Ind.*

Austin Meadows, *Assistant State Superintendent of Education, Montgomery, Ala.*

Rev. Paul Reinert, S. J.,[2] *President, St. Louis University, St. Louis, Mo.*

Arthur Roe, *Head, Course Content Improvement Section, Division of Scientific Personnel and Education, National Science Foundation, Washington, D.C.*

Harry J. Skornia, *Professor of Radio and Television, College of Journalism, University of Illinois, Urbana, Ill.*

William E. Spaulding, *President, Houghton Mifflin Co., Boston, Mass.*

Jerrold Zacharias, *Professor of Physics, Massachusetts Institute of Technology, Cambridge, Mass.*

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[1] Resigned October 1961.

[2] Appointment effective April 1962.

Advisory Committee for NDEA, Title X, Section 1001(d), The Survey of Federal Programs on Higher Education

McGeorge Bundy, *Dean of the Faculty of Arts and Sciences, Harvard University (resigned from the committee in 1961 when appointed special assistant to the President of the United States)*

Felton G. Clark, *President, Southern University*

Lee A. DuBridge, *President, California Institute of Technology*

John E. Ivey, Jr. (*Chairman*), *Special Consultant to the President, Michigan State University*

Douglas Knight, *President, Lawrence College*

Herbert E. Longenecker, *President, Tulane University*

Bowen C. Dees, *Assistant Director for Scientific Personnel and Education, National Science Foundation (invited to participate in meetings of the committee because of the responsibility of the National Science Foundation in the science and science-education aspects of the study)*

Charles E. Odegaard, *President, University of Washington*

John A. Perkins, *President, University of Delaware*

Paul C. Reinert, *President, St. Louis University*

M. H. Trytten, *Director, Office of Scientific Personnel, National Academy of Science*

John C. Weaver, *Vice President for Research and Dean of the Graduate College, the State University of Iowa*

Helen C. White, *Professor, Department of English, University of Wisconsin*

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Appendix B

Tables

Table 1.—Number and amount of loans under title II, by sex, academic year, and State: Fiscal year 1961

State or territory	Amount loaned [1]	Number of borrowers								
		Total	Sex		Academic year					
			Men	Women	Freshman	Sophomore	Junior	Senior	Graduate and professional
1	2	3	4	5	6	7	8	9	10
Total	**$70,677,950**	**151,068**	**95,703**	**55,365**	**40,179**	**33,105**	**30,053**	**34,134**	**13,377**
Alabama	1,318,641	3,092	1,658	1,434	1,069	706	535	597	165
Alaska	15,357	35	26	9	1	6	8	17	3
Arizona	442,663	854	588	266	133	147	172	247	155
Arkansas	917,997	2,444	1,433	1,011	733	541	543	562	65
California	5,408,357	9,923	6,692	3,231	1,684	1,593	1,992	2,491	2,163
Colorado	949,572	1,901	1,240	661	453	389	372	388	299
Connecticut	581,236	1,316	850	466	314	266	294	386	56
Delaware	66,145	245	114	131	90	70	52	40	3
District of Columbia	914,230	1,379	981	398	290	281	215	191	402
Florida	1,378,733	2,893	1,748	1,145	864	631	585	619	194
Georgia	1,129,957	2,940	1,759	1,181	780	643	592	667	258
Hawaii	106,781	233	156	77	34	39	50	55	55
Idaho	269,546	592	407	185	135	141	148	164	4
Illinois	2,868,778	5,999	3,772	2,227	1,423	1,200	1,336	1,541	499
Indiana	2,086,936	4,285	2,830	1,455	1,058	915	890	1,023	399
Iowa	1,554,585	3,114	1,957	1,157	812	747	629	705	221
Kansas	1,786,930	3,188	2,176	1,012	644	543	696	947	358
Kentucky	1,339,470	3,136	1,851	1,285	939	750	543	604	300
Louisiana	1,513,700	3,073	1,939	1,134	876	563	537	698	399
Maine	313,697	797	615	182	177	199	184	221	16
Maryland	878,703	1,876	1,236	640	556	414	354	297	255
Massachusetts	2,247,467	5,065	3,566	1,499	1,107	1,220	1,068	1,378	292
Michigan	2,443,139	4,501	2,558	1,943	1,295	955	879	1,049	323
Minnesota	1,828,010	4,170	2,447	1,723	1,299	1,061	804	819	187
Mississippi	1,071,362	2,967	1,501	1,466	806	682	695	662	122
Missouri	2,333,983	5,230	3,502	1,728	1,362	997	983	1,142	746
Montana	285,326	589	430	159	166	129	120	152	22
Nebraska	740,319	1,501	1,037	464	331	305	284	345	236
Nevada	52,456	83	50	33	7	15	23	35	3
New Hampshire	373,863	945	796	149	238	246	176	252	33
New Jersey	1,272,096	2,645	1,719	926	785	636	541	521	162
New Mexico	377,903	866	639	227	209	176	172	238	71
New York	6,634,701	11,912	7,989	3,923	3,679	2,991	2,108	2,161	973
North Carolina	1,901,830	5,230	3,042	2,188	1,494	1,119	939	1,128	550
North Dakota	447,074	843	659	184	236	181	157	211	58
Ohio	3,146,021	6,514	4,047	2,467	1,797	1,589	1,342	1,372	414
Oklahoma	1,707,618	3,902	2,374	1,528	1,139	909	820	892	151
Oregon	847,291	1,889	1,244	645	372	406	344	442	325
Pennsylvania	4,484,567	9,465	6,250	3,215	2,701	2,356	1,849	1,980	579
Rhode Island	628,785	1,262	997	265	348	260	304	295	55
South Carolina	855,622	2,263	1,074	1,189	761	549	363	478	112
South Dakota	[illegible]	1,250	872	378	418	284	226	293	29
Tennessee	1,482,404	3,515	1,954	1,561	1,135	752	594	702	332
Texas	3,595,215	7,805	4,107	3,698	2,263	1,786	1,578	1,766	412
Utah	335,796	795	605	190	137	125	179	252	102
Vermont	298,103	816	555	261	180	217	193	172	54
Virginia	1,078,044	2,575	1,394	1,181	846	544	478	503	204
Washington	1,362,983	2,833	1,800	1,033	561	494	644	800	334
West Virginia	805,918	1,835	1,102	733	583	422	365	436	29
Wisconsin	1,403,489	2,854	1,902	952	626	577	578	775	298
Wyoming	92,853	158	117	41	24	32	31	55	16
Puerto Rico	392,227	1,475	846	629	219	315	489	388	64

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[1] The total amount loaned reported in this table is $334,874 less than the total amount actually loaned. Five institutions making loans failed to submit Operations Reports.

Table 2.—Number and amount of loans under title II, by sex, academic year, and State: Fiscal year 1962

State or territory	Amount loaned	Number of borrowers							
		Total	Sex		Academic year				
			Men	Women	Freshman	Sophomore	Junior	Senior	Graduate and professional
1	2	3	4	5	6	7	8	9	10
Total	**$89,109,307**	**186,465**	**112,167**	**74,298**	**49,441**	**43,173**	**39,090**	**39,837**	**14,924**
Alabama	1,616,083	3,740	1,825	1,915	1,316	831	683	764	146
Alaska	22,083	46	35	11	4	9	9	24	....
Arizona	644,370	1,110	682	428	206	198	226	248	232
Arkansas	1,212,464	3,083	1,665	1,418	990	732	645	633	83
California	6,508,552	11,845	7,664	4,181	2,057	2,122	2,361	2,826	2,479
Colorado	1,335,124	2,499	1,575	924	618	541	541	466	333
Connecticut	820,312	1,760	1,091	669	380	430	425	460	65
Delaware	88,507	321	183	138	124	82	65	47	3
District of Columbia	1,054,774	1,716	1,217	499	433	308	292	248	435
Florida	1,721,076	3,613	1,952	1,661	900	941	753	811	208
Georgia	1,263,874	3,228	1,891	1,337	804	737	698	779	210
Hawaii	145,306	270	148	122	56	41	57	86	30
Idaho	358,818	741	455	286	169	181	176	208	7
Illinois	3,718,766	7,681	4,707	2,974	1,866	1,551	1,670	1,793	801
Indiana	2,453,312	5,032	3,124	1,908	1,394	1,158	1,077	998	405
Iowa	2,173,389	4,275	2,594	1,681	1,184	1,030	855	916	290
Kansas	1,888,687	3,637	2,275	1,362	801	771	804	945	316
Kentucky	1,730,161	4,147	2,440	1,707	1,226	975	828	788	330
Louisiana	1,826,447	3,817	2,243	1,574	959	795	699	903	461
Maine	463,933	1,166	934	232	283	298	275	297	13
Maryland	1,008,173	2,324	1,514	810	637	518	480	445	244
Massachusetts	2,489,450	5,620	3,759	1,861	1,213	1,439	1,285	1,393	290
Michigan	2,820,537	5,455	2,908	2,547	1,793	1,233	1,124	1,050	255
Minnesota	2,383,380	5,258	3,017	2,241	1,608	1,236	1,173	1,044	197
Mississippi	1,522,917	4,140	2,080	2,060	1,229	934	976	849	152
Missouri	2,799,047	5,837	3,699	2,138	1,477	1,196	1,113	1,228	823
Montana	424,090	874	567	307	254	195	178	211	36
Nebraska	948,965	2,043	1,340	703	501	444	450	422	226
Nevada	72,233	120	77	43	20	24	28	39	9
New Hampshire	511,912	1,102	894	208	243	292	249	261	57
New Jersey	1,516,407	3,317	2,056	1,261	911	877	696	658	175
New Mexico	501,192	1,102	778	324	283	222	242	280	75
New York	8,766,893	15,309	9,837	5,472	3,939	4,024	3,292	2,809	1,245
North Carolina	2,383,931	6,060	3,294	2,766	1,801	1,445	1,208	1,139	467
North Dakota	588,971	1,159	790	369	385	258	229	246	41
Ohio	3,899,472	8,057	4,846	3,211	2,083	2,002	1,747	1,789	436
Oklahoma	1,995,739	4,555	2,590	1,965	1,407	1,002	931	1,067	148
Oregon	1,071,912	2,029	1,170	859	390	423	437	497	282
Pennsylvania	5,704,736	11,445	7,373	4,072	3,112	3,012	2,388	2,287	646
Rhode Island	823,749	1,733	1,297	436	485	451	375	360	62
South Carolina	1,194,952	2,920	1,385	1,535	935	690	585	581	129
South Dakota	747,623	1,873	1,239	634	561	479	412	376	45
Tennessee	2,054,126	4,621	2,580	2,041	1,448	1,081	835	796	461
Texas	4,633,401	9,670	4,844	4,826	2,763	2,202	2,123	2,040	542
Utah	421,132	872	661	211	154	142	202	247	127
Vermont	444,219	1,071	741	330	237	233	271	263	67
Virginia	1,361,621	3,389	1,726	1,663	1,107	799	607	654	222
Washington	1,651,063	3,335	1,889	1,446	848	642	768	847	230
West Virginia	1,118,545	2,539	1,532	1,007	781	630	529	509	90
Wisconsin	1,625,079	3,232	2,009	1,223	811	726	709	768	218
Wyoming	156,725	243	171	72	49	45	55	68	26
Puerto Rico	421,082	1,434	804	630	206	496	254	424	54

Table 3.—National Defense student loan accounts under title II at institutions of higher education, by State: Cumulative February 1959–June 30, 1962

State or Territory	Number of institutions reporting	Contributions			Student borrowers and amount loaned		Loans							
							Collected		Canceled					
									For teaching service		Death		Disability	
		Total	Federal	Institutional	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Total	**1,468**	**$224,865,345.64**	**$202,194,646.81**	**$22,670,698.83**	**363,463**	**$219,718,772.70**	**37,006**	**$5,198,125.02**	**16,825**	**$1,305,043.83**	**275**	**$147,924.05**	**3**	**$1,435.00**
Alabama	27	3,990,756.06	3,591,622.00	399,134.06	6,834	3,911,903.67	747	95,858.18	255	18,632.90	9	3,735.50		
Alaska	2	47,106.66	42,396.00	4,710.66	86	48,815.00	10	2,935.00	4	210.00				
Arizona	6	1,567,686.30	1,396,362.00	171,324.30	2,318	1,548,394.50	288	24,227.22	174	13,259.78				
Arkansas	20	2,781,618.49	2,503,139.00	278,479.49	6,315	2,736,159.58	466	45,826.31	165	11,972.39	3	890.00		
California	106	17,358,265.55	15,621,724.00	1,736,541.55	22,944	16,538,615.58	2,055	298,477.43	1,517	115,639.02	27	16,393.00	1	130.00
Colorado	18	3,290,433.45	2,957,726.00	332,707.45	4,858	3,260,578.18	499	82,311.19	303	29,390.82	6	2,283.00		
Connecticut	18	2,211,384.25	1,987,957.00	223,427.25	4,102	2,061,777.23	475	45,517.28	174	9,225.13	2	2,250.00		
Delaware	2	215,675.55	194,108.00	21,567.55	581	206,180.90	76	7,327.50	4	145.80				
District of Columbia	11	2,695,286.76	2,425,392.00	269,894.76	3,412	2,670,670.86	262	45,465.56	62	6,902.97	2	300.00		
Florida	25	4,400,636.19	3,959,246.00	441,390.19	6,987	4,289,924.33	947	128,593.05	222	21,034.24	3	1,350.00		
Georgia	34	3,426,017.38	3,081,353.00	344,664.38	6,705	3,306,382.49	472	72,569.25	134	11,549.13	2	500.00		
Hawaii	3	316,907.78	285,217.00	31,690.78	488	310,231.88	54	7,111.45	27	2,009.50	1	540.00		
Idaho	7	850,850.97	765,765.00	85,085.97	1,602	851,076.47	149	22,654.04	91	6,025.80	2	446.00		
Illinois	62	9,836,190.95	8,842,419.00	993,771.95	15,892	9,516,870.74	2,012	337,446.97	902	67,556.20	11	7,683.00		
Indiana	29	6,514,648.93	5,863,071.00	651,577.93	11,818	6,486,868.08	1,611	214,259.47	546	45,139.65	9	6,840.00		
Iowa	44	5,082,118.19	4,573,258.00	508,860.19	7,387	5,074,438.23	806	135,790.93	453	36,093.43	7	3,575.00		
Kansas	35	4,774,821.84	4,282,670.00	492,151.84	7,070	4,685,667.94	898	123,225.47	576	45,158.37	6	4,645.00		
Kentucky	29	4,004,146.12	3,598,764.00	405,382.12	7,025	4,001,691.08	762	88,759.45	364	23,312.96	8	2,310.00		
Louisiana	16	4,654,407.27	4,188,692.00	465,715.27	6,773	4,608,617.49	736	93,521.21	129	10,817.18	6	2,725.50		
Maine	15	1,067,293.91	956,142.00	111,151.91	2,215	1,066,017.98	286	28,431.55	79	5,178.19				
Maryland	19	2,685,734.91	2,414,227.00	271,507.91	4,228	2,677,238.31	314	53,587.02	82	5,221.89	3	2,400.00		
Massachusetts	64	6,856,709.83	6,160,335.50	696,374.33	11,329	6,760,658.48	1,049	166,922.33	346	27,777.91	8	4,825.00		
Michigan	43	7,890,194.82	7,100,536.00	789,658.82	11,436	7,764,048.40	1,249	158,587.97	573	54,442.00	6	3,525.00		
Minnesota	32	5,749,161.39	5,172,924.00	576,237.39	9,307	5,740,835.73	1,090	145,770.08	864	67,611.70	8	5,150.00		
Mississippi	35	3,415,804.28	3,074,084.00	341,720.28	7,184	3,331,544.33	494	60,510.95	172	11,805.86	6	1,492.73		
Missouri	43	6,801,662.56	6,120,266.22	681,396.34	10,450	6,776,484.23	1,346	191,018.28	577	39,925.96	7	2,420.00		
Montana	9	949,473.84	854,443.00	95,030.84	1,424	936,050.08	156	22,397.40	97	7,439.05	4	2,574.29		
Nebraska	20	2,291,809.76	2,061,671.00	230,138.76	3,588	2,272,446.41	372	50,155.23	299	25,886.22	4	1,800.00		
Nevada	1	162,300.00	145,981.00	16,319.00	206	159,589.00	11	1,366.50	25	2,723.08				
New Hampshire	7	1,178,194.63	1,058,178.00	120,016.63	2,355	1,187,106.89	202	31,552.64	85	4,782.90	2	465.00		
New Jersey	24	3,970,727.95	3,573,620.00	397,107.95	6,167	3,865,357.78	601	93,533.74	199	13,526.77	5	31,100.00		
New Mexico	9	1,213,965.78	1,090,306.00	123,659.78	2,456	1,208,970.73	169	22,595.93	75	6,649.86	2	755.00		
New York	108	22,378,845.89	20,127,056.00	2,251,789.89	30,367	21,393,600.97	2,573	471,312.57	922	74,912.76	19	11,650.00		
North Carolina	54	5,944,854.81	5,349,901.00	594,953.81	13,787	5,747,572.91	1,013	150,192.58	423	26,603.83	6	2,605.50		
North Dakota	12	1,360,603.84	1,224,054.00	136,549.84	2,139	1,340,690.04	128	21,638.91	154	10,782.87	1	400.00		
Ohio	59	9,940,167.09	8,943,895.00	996,272.09	15,903	9,745,632.64	1,805	243,515.29	993	78,737.62	13	6,621.00	1	405.00
Oklahoma	31	5,157,262.09	4,638,488.00	518,774.09	8,968	4,990,993.20	1,050	94,546.57	562	38,267.55	5	798.00		
Oregon	19	2,609,313.37	2,341,204.00	268,109.37	4,303	2,600,990.35	440	52,572.24	198	19,008.33	4	1,699.75		
Pennsylvania	86	14,166,041.67	12,719,892.00	1,446,149.67	21,415	13,941,742.44	2,140	378,294.55	595	46,954.08	10	8,112.50		
Rhode Island	9	1,829,872.19	1,642,990.00	186,882.19	3,446	1,861,926.95	154	63,138.11	115	6,619.76	3	2,400.00		
South Carolina	26	2,925,259.61	2,631,944.00	293,315.61	5,301	2,760,110.78	564	54,545.76	134	9,313.89	4	1,827.50		
South Dakota	14	1,595,160.74	1,435,581.00	159,579.74	3,075	1,572,452.62	324	36,884.73	313	18,295.11	4	2,200.00		
Tennessee	43	4,817,566.83	4,335,408.00	482,158.83	8,281	4,713,671.24	841	100,367.61	248	19,423.73	8	4,780.00		
Texas	74	11,492,680.50	10,335,402.09	1,157,278.41	17,689	11,142,395.12	2,005	214,511.05	701	62,074.32	11	5,314.50		
Utah	9	1,135,234.82	1,014,743.00	120,491.82	1,924	1,118,790.41	237	31,984.29	137	12,918.80	3	2,371.43		
Vermont	12	1,002,371.13	881,030.00	121,341.13	1,886	995,420.73	214	31,020.14	61	3,809.48	2	765.00		
Virginia	22	3,487,292.56	3,138,454.00	348,838.56	6,204	3,396,622.54	502	69,987.04	170	10,606.07	3	1,075.00		
Washington	19	4,146,721.85	3,730,624.00	416,097.85	6,695	4,098,478.63	698	105,689.19	519	43,413.30	7	3,605.00		
West Virginia	19	2,481,526.05	2,232,176.00	249,350.05	4,834	2,433,833.53	279	35,363.34	212	13,547.03	6	3,838.10		
Wisconsin	31	4,487,363.87	4,038,523.00	448,840.87	7,205	4,388,876.92	838	126,922.65	578	42,420.08	5	2,075.75	1	900.00
Wyoming	3	363,973.15	327,572.00	36,401.15	462	324,545.35	34	3,948.81	32	3,476.80	2	862.00		
Puerto Rico	3	1,291,241.23	1,162,115.00	129,126.23	4,037	1,289,212.75	508	13,383.01	183	16,190.80				

Table 4.—Unpaid balances of 1960 allotments, 1961 allotments, total available in 1961, payments to States under title III for acquisition of equipment and minor remodeling, and total reported State expenditures for these purposes, by State: Fiscal year 1961

State or territory 1	Unpaid balance of 1960 allotment 2	1961 allotment 3	Total available for payment in 1961 4	Payment in 1961 [1] 5	Expenditure in 1961 [2] 6
Total	**$22,193,809**	**$47,520,000**	**$69,713,809**	**$29,622,157**	**$46,060,662**
Alabama		1,299,037	1,299,037	1,274,913	744,359
Alaska	25,000	51,037	76,037	76,037	86,521
Arizona	443,829	444,057	887,886	(3)	(3)
Arkansas	671,783	701,451	1,373,234	689,388	549,826
California	2,679,080	2,547,649	5,226,729	2,679,080	2,679,063
Colorado		481,567	481,567	481,567	542,262
Connecticut	427,854	397,388	825,242	825,242	354,728
Delaware	85,051	79,026	164,077	98,600	99,920
District of Columbia	85,510	101,605	187,115	102,492	103,549
Florida		1,247,018	1,247,018		967,706
Georgia	1,500,000	1,538,373	3,038,373	1,500,000	1,365,224
Hawaii		158,780	158,780	25,448	145,547
Idaho		254,979	254,979	254,979	234,463
Illinois	1,888,497	1,754,133	3,642,630	2,083,669	2,112,724
Indiana		1,243,491	1,243,491		1,275,731
Iowa	320,378	848,465	1,168,843	875,124	1,117,891
Kansas	385,421	612,242	997,663	612,641	695,734
Kentucky	695,155	1,214,744	1,909,899	695,155	971,262
Louisiana		1,268,933	1,268,933	413,643	484,192
Maine	343,657	298,251	641,908	240,001	177,970
Maryland	712,587	759,454	1,472,041	712,587	648,289
Massachusetts	506,057	907,481	1,413,538	959,797	1,144,703
Michigan	1,617,892	1,981,784	3,599,676	1,990,271	1,990,271
Minnesota		1,035,896	1,035,896	1,035,896	1,156,020
Mississippi		912,187	912,187	245,391	500,000
Missouri		1,024,941	1,024,941	219,843	890,614
Montana		213,127	213,127	213,127	132,170
Nebraska	239,619	426,590	666,209	439,619	503,611
Nevada	25,602	51,904	77,506	45,869	39,068
New Hampshire	72,759	158,287	231,046	90,166	162,395
New Jersey	524,621	965,624	1,490,245	947,989	1,086,593
New Mexico	147,530	373,303	520,833	334,638	493,190
New York		2,630,439	2,630,439		3,048,241
North Carolina	1,025,368	1,806,310	2,831,678	1,552,287	1,937,624
North Dakota		249,874	249,874		344,387
Ohio	1,180,933	2,208,228	3,389,161	2,452,570	3,102,941
Oklahoma		756,573	756,573	756,573	751,246
Oregon	322,479	484,132	806,611		583,547
Pennsylvania	1,184,006	2,573,877	3,757,883	1,184,006	3,227,439
Rhode Island		182,602	182,602		151,670
South Carolina	948,396	1,035,619	1,984,015	711,297	678,886
South Dakota	124,204	258,451	382,655	216,368	198,184
Tennessee	1,248,259	1,336,670	2,584,929	715,619	831,429
Texas	3,430	3,215,689	3,219,119	3,426	2,481,737
Utah	296,181	351,996	648,177	111,383	249,498
Vermont	139,453	123,773	263,226	126,610	83,386
Virginia	689,231	1,352,908	2,042,139	11,022	815,572
Washington		718,442	718,442	257,723	913,756
West Virginia		785,745	785,745	200,000	916,459
Wisconsin	654,937	1,125,891	1,780,828	750,000	2,003,552
Wyoming		99,794	99,794	24,401	[4] 24,401
Canal Zone	50,000	50,000	100,000	(3)	(3)
Guam	50,000	50,000	100,000	37,500	32,348
Puerto Rico	829,050	720,183	1,549,233	325,000	214,061
Virgin Islands	50,000	50,000	100,000	23,200	14,702

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[1] Net Federal payments as of June 30, 1961. Payments shown in column 5 include amounts shown in column 2. Payments in column 5 are adjusted, reflecting prior year's balances in the States.

[2] Expenditures shown in column 6 are subject to adjustment and in some instances include June 30, 1960, State treasury balances from Federal funds allotted to the States in fiscal year 1960.

[3] Arizona and the Canal Zone did not participate.

[4] Estimated amount, expenditure data not available.

Table 5.—Unpaid balances of 1961 allotments, 1962 allotments, total available for payment in 1962, payments to States under title III for acquisition of equipment and minor remodeling, and total reported State expenditures for these purposes, by State: Fiscal year 1962

State or territory 1	Unpaid balance of 1961 allotment 2	1962 allotment 3	Total available for payment in 1962 4	Payment in 1962 [1] 5	Expenditure in 1962 [2] 6
Total	**$36,982,745**	**$47,520,000**	**$84,502,745**	**$44,120,210**	**$42,845,630**
Alabama	24,124	1,298,435	1,322,559	469,090	1,090,406
Alaska	....	50,000	50,000	50,000	47,465
Arizona	444,057	454,149	898,206	(3)	(3)
Arkansas	683,846	683,842	1,367,688	682,395	445,617
California	2,547,649	2,671,891	5,219,540	2,547,649	2,547,567
Colorado	....	495,327	495,327	495,327	481,815
Connecticut	....	419,827	419,827	173,126	478,456
Delaware	65,477	77,906	143,383	143,383	139,660
District of Columbia	84,623	102,431	187,054	121,564	117,728
Florida	1,247,018	1,271,012	2,518,030	1,146,421	985,758
Georgia	1,538,373	1,530,710	3,069,083	1,538,373	1,187,784
Hawaii	133,332	152,653	285,985	240,299	251,150
Idaho	....	259,743	259,743	45,109	157,877
Illinois	1,558,961	1,728,396	3,287,357	1,558,961	1,578,571
Indiana	1,243,491	1,244,571	2,488,062	1,546,473	1,259,938
Iowa	293,720	836,581	1,130,301	879,801	845,402
Kansas	385,022	617,373	1,002,395	520,735	679,542
Kentucky	1,214,744	1,151,279	2,366,023	1,026,623	744,289
Louisiana	855,290	1,288,335	2,143,625	939,098	324,574
Maine	298,251	306,275	604,526	186,500	186,457
Maryland	759,454	772,008	1,531,462	759,454	685,247
Massachusetts	453,740	933,332	1,387,072	1,387,072	1,510,063
Michigan	1,609,405	1,953,417	3,562,822	2,562,822	1,961,904
Minnesota	....	1,049,754	1,049,754	549,754	1,148,612
Mississippi	666,796	903,133	1,569,929	614,441	700,000
Missouri	805,098	1,036,633	1,841,731	1,263,292	716,167
Montana	....	211,437	211,437	63,603	227,603
Nebraska	226,590	413,729	640,319	226,590	403,379
Nevada	31,637	49,005	80,642	78,165	74,256
New Hampshire	140,880	164,256	305,136	152,593	169,772
New Jersey	542,256	986,810	1,529,066	1,529,066	1,429,245
New Mexico	186,195	393,858	580,053	430,760	285,513
New York	2,630,439	2,629,330	5,259,769	2,818,405	2,878,675
North Carolina	1,279,391	1,800,496	3,079,887	1,973,081	1,847,375
North Dakota	249,874	248,146	498,020	433,518	390,162
Ohio	936,591	2,212,663	3,149,254	3,149,254	2,337,686
Oklahoma	....	759,662	759,662	759,662	833,520
Oregon	484,132	489,302	973,434	696,464	545,477
Pennsylvania	2,573,877	2,574,727	5,148,604	1,101,591	2,717,335
Rhode Island	182,602	180,660	363,262	199,141	153,495
South Carolina	1,035,619	1,007,007	2,042,626	750,000	608,481
South Dakota	166,287	257,791	424,078	224,753	242,222
Tennessee	1,336,670	1,328,731	2,665,401	1,000,000	663,814
Texas	3,215,689	3,157,259	6,372,948	2,367,218	1,892,359
Utah	351,996	356,886	708,882	337,500	260,283
Vermont	123,773	127,755	251,528	251,528	122,354
Virginia	1,352,908	1,322,988	2,675,896	1,025,000	1,010,283
Washington	460,719	729,573	1,190,292	622,233	734,693
West Virginia	585,745	730,008	1,315,753	585,745	608,864
Wisconsin	1,030,828	1,120,082	2,150,910	1,530,828	1,792,695
Wyoming	75,393	101,479	176,872	(3)	(3)
Canal Zone	50,000	50,000	100,000	(3)	(3)
Guam	50,000	50,000	100,000	25,000	21,148
Puerto Rico	720,183	727,347	1,447,530	315,000	300,818
Virgin Islands	50,000	50,000	100,000	25,750	22,074

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[1] Net Federal payments as of June 30, 1962. Payments shown in column 5 include amounts shown in column 2. Payments in column 5 are adjusted reflecting prior year's balances in the States.

[2] Expenditures reported by States shown in column 6 are subject to adjustment and in some instances include June 30, 1961, State Treasury balances from Federal funds allotted to the States in fiscal year 1961.

[3] Arizona, Wyoming, and Canal Zone did not participate.

Table 6.—Allotments, payments to States, and reported expenditures under title III, for State supervisory and related services and administration of State plans, by State: Fiscal years 1961 and 1962

State or Territory	Fiscal year 1961			Fiscal year 1962		
	Allotment	Payment [1]	Expenditure [2]	Allotment	Payment [1]	Expenditure [2]
1	2	3	4	5	6	7
Total	**$3,750,000**	**$2,389,514**	**$2,407,571**	**$3,750,000**	**$2,840,850**	**$2,530,622**
Alabama	73,636	51,296	51,296	73,415	66,068	55,581
Alaska	20,000	20,000	9,026	20,000	17,500	12,308
Arizona	27,987	(3)	(3)	28,550	(3)	(3)
Arkansas	39,762	39,762	38,875	38,665	38,665	38,665
California	288,828	288,828	288,828	302,141	302,141	297,393
Colorado	34,984	34,984	34,984	35,892	35,892	35,891
Connecticut	45,052	20,038	16,827	47,475	18,887	18,887
Delaware	20,000	20,000	19,374	20,000	20,000	19,651
District of Columbia	20,000	20,000	18,891	20,000	20,000	19,140
Florida	91,469	91,469	91,469	92,992	92,992	92,992
Georgia	87,203	87,203	87,203	86,548	86,548	86,548
Hawaii	20,000	10,000	10,000	20,000	20,000	10,000
Idaho	20,000	12,783	12,652	20,000	19,510	18,079
Illinois	191,642	159,665	148,569	188,349	170,000	163,948
Indiana	94,456	----------	26,460	94,297	54,284	27,863
Iowa	56,400	34,972	45,064	55,469	55,469	43,898
Kansas	42,578	27,500	21,869	42,825	27,500	21,476
Kentucky	68,858	38,286	30,666	65,094	41,491	29,717
Louisiana	71,930	71,930	71,930	72,844	72,844	66,806
Maine	20,000	20,000	19,214	20,000	20,000	20,000
Maryland	61,947	29,778	16,509	62,810	37,765	27,433
Massachusetts	92,237	60,000	46,946	94,623	69,500	46,177
Michigan	165,106	32,500	27,412	162,328	38,000	15,400
Minnesota	69,967	51,704	45,852	70,723	70,723	61,784
Mississippi	51,708	45,000	34,123	51,064	50,000	34,225
Missouri	80,292	59,797	59,697	81,001	65,000	59,569
Montana	20,000	19,999	19,999	20,000	20,000	20,000
Nebraska	28,670	21,072	18,222	27,724	19,000	16,138
Nevada	20,000	19,999	16,979	20,000	20,000	17,770
New Hampshire	20,000	19,773	20,000	20,000	18,441	18,427
New Jersey	109,473	42,697	38,056	111,590	43,345	43,225
New Mexico	21,161	21,161	20,968	22,269	22,269	22,269
New York	298,214	250,000	260,937	297,328	297,328	286,516
North Carolina	102,391	32,472	22,028	101,802	88,392	56,798
North Dakota	20,000	20,000	20,000	20,000	20,000	20,000
Ohio	193,349	37,500	29,499	193,243	35,000	33,088
Oklahoma	46,588	46,588	46,072	46,659	46,659	42,072
Oregon	36,008	----------	29,090	36,299	36,240	34,269
Pennsylvania	214,765	214,765	214,765	214,289	214,289	214,289
Rhode Island	20,000	19,083	16,000	20,000	19,912	19,942
South Carolina	58,704	58,704	58,704	56,937	56,937	56,937
South Dakota	20,000	11,393	12,368	20,000	13,521	12,572
Tennessee	75,769	----------	46,629	75,128	64,904	51,151
Texas	206,318	----------	43,986	202,053	63,691	54,620
Utah	20,649	20,649	20,649	20,882	20,882	20,701
Vermont	20,000	14,400	13,163	20,000	20,000	15,614
Virginia	84,131	25,082	23,440	82,061	12,808	11,477
Washington	57,339	31,628	15,082	58,079	58,079	25,600
West Virginia	44,540	44,540	44,540	41,275	41,275	41,275
Wisconsin	80,889	29,614	26,192	80,267	42,099	33,375
Wyoming	20,000	18,000	[4] 18,000	20,000	(3)	(3)
Canal Zone	10,000	(3)	(3)	10,000	(3)	(3)
Guam	10,000	8,000	4,021	10,000	0	4,066
Puerto Rico	25,000	25,000	25,000	25,000	25,000	25,000
Virgin Islands	10,000	9,900	9,446	10,000	10,000	10,000

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[1] Net Federal payments as of June 30. In some instances, payments shown in columns 3 and 6 include prior year's unexpended balances in the State that were applied against the 1961 and 1962 Federal allotments, respectively.

[2] Expenditures shown are subject to adjustment, and in some instances include June 30, 1960, or June 30, 1961, State Treasury balances from Federal funds allotted to the State in fiscal years 1960 and 1961, respectively.

[3] Arizona, Wyoming, and Canal Zone did not participate.

[4] Estimated amount, expenditure data not available.

Table 7.—Approved projects and Federal, State, and local funds involved for projects under title III, by field of study and grade level: Fiscal year 1961

Field of study	All approved projects and projects involving minor remodeling			Projects involving equipment only [4]			Projects involving minor remodeling [5]			Number of classrooms and laboratory units involving remodeling
	Number [2]	Cost	Percent	Number	Cost	Percent	Number	Cost	Percent	
1	2	3	4	5	6	7	8	9	10	11
Grand total [1]	**[3] 55,392**	**$94,846,832**	**100.0**	**53,836**	**$91,157,295**	**100.0**	**1,556**	**$3,689,537**	**100.0**	**4,968**
Elementary	**21,990**	**16,335,459**	**17.2**	**21,841**	**16,167,632**	**17.7**	**149**	**167,827**	**4.5**	**460**
Secondary	**22,461**	**45,212,699**	**47.7**	**21,570**	**43,270,087**	**47.5**	**891**	**1,942,612**	**52.7**	**1,319**
Combined elementary-secondary	**10,941**	**33,298,674**	**35.1**	**10,425**	**31,719,576**	**34.8**	**516**	**1,579,098**	**42.8**	**3,189**
Science	**31,134**	**$69,492,001**	**100.0**	**29,866**	**$66,163,960**	**100.0**	**1,268**	**$3,328,041**	**100.0**	**3,524**
Elementary	12,708	12,385,378	17.8	12,577	12,240,387	18.5	131	144,991	4.4	434
Secondary	12,094	32,052,235	46.1	11,404	30,300,315	45.8	690	1,751,920	52.6	1,046
Combined elementary-secondary	6,332	25,054,388	36.1	5,885	23,623,258	35.7	447	1,431,130	43.0	2,044
Mathematics	**14,606**	**$8,013,582**	**100.0**	**14,552**	**$7,943,194**	**100.0**	**54**	**$70,388**	**100.0**	**925**
Elementary	6,525	2,436,745	30.4	6,519	2,427,970	30.6	6	8,775	12.5	13
Secondary	5,170	2,348,015	29.3	5,142	2,321,773	29.2	28	26,242	37.3	75
Combined elementary-secondary	2,911	3,228,822	40.3	2,891	3,193,451	40.2	20	35,371	50.2	837
Languages	**9,652**	**$17,341,249**	**100.0**	**9,418**	**$17,050,141**	**100.0**	**234**	**$291,108**	**100.0**	**519**
Elementary	2,757	1,513,336	8.7	2,745	1,499,275	8.8	12	14,061	4.8	13
Secondary	5,197	10,812,449	62.4	5,024	10,647,999	62.4	173	164,450	56.5	198
Combined elementary-secondary	1,698	5,015,464	28.9	1,649	4,902,867	28.8	49	112,597	38.7	308

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[1] 48 States, District of Columbia, Guam, Puerto Rico, and the Virgin Islands had approved projects. Arizona and Canal Zone did not participate. Wyoming report was not received.

[2] The project unit may be a county, district, township, or combination thereof.

[3] Where a single project resulted in funds approved for more than one of the subject-matter fields (science, mathematics, and modern foreign languages), the funds were prorated for each subject-matter field. Projects covering two or more subject-matter fields are included in the total projects of each field. The number of projects in this table overstates the actual number. The actual number of projects is shown in table 11.

[4] Column 2 minus column 8 equals column 5, and column 3 minus column 9 equals column 6.

[5] Minor remodeling portion of projects involving acquisition of equipment and minor remodeling. There can be no projects for minor remodeling only.

Table 8.—Approved projects and Federal, State, and local funds involved for projects under title III, by field of study and grade level: Fiscal year 1962

Field of study	All approved projects and projects involving minor remodeling			Projects involving equipment only [4]			Projects involving minor remodeling [5]			Number of classrooms and laboratory units involving remodeling
	Number [2]	Cost	Percent	Number	Cost	Percent	Number	Cost	Percent	
1	2	3	4	5	6	7	8	9	10	11
Grand total [1]	**[3] 58,810**	**$99,746,047**	**100.0**	**57,507**	**$96,276,748**	**100.0**	**1,303**	**$3,469,299**	**100.0**	**3,328**
Elementary	**23,132**	**18,645,613**	**18.7**	**22,962**	**18,500,611**	**19.2**	**170**	**145,002**	**4.2**	**1,036**
Secondary	**24,516**	**50,189,122**	**50.3**	**23,750**	**48,122,992**	**50.0**	**766**	**2,066,130**	**59.5**	**1,150**
Combined elementary-secondary	**11,162**	**30,911,312**	**31.0**	**10,795**	**29,653,145**	**30.8**	**367**	**1,258,167**	**36.3**	**1,142**
Science	**33,649**	**$72,077,777**	**100.0**	**32,632**	**$68,988,338**	**100.0**	**1,017**	**$3,089,439**	**100.0**	**2,093**
Elementary	13,909	13,682,820	19.0	13,776	13,566,649	19.7	133	116,171	3.7	463
Secondary	13,360	34,958,035	48.5	12,779	33,126,959	48.0	581	1,831,076	59.3	876
Combined elementary-secondary	6,380	23,436,922	32.5	6,077	22,294,730	32.3	303	1,142,192	37.0	754
Mathematics	**15,402**	**$8,991,123**	**100.0**	**15,336**	**$8,941,981**	**100.0**	**66**	**$49,142**	**100.0**	**362**
Elementary	6,874	2,893,744	32.2	6,858	2,888,315	32.3	16	5,429	11.0	76
Secondary	5,515	3,091,760	34.4	5,486	3,065,727	34.3	29	26,033	53.0	37
Combined elementary-secondary	3,013	3,005,619	33.4	2,992	2,987,939	33.4	21	17,680	36.0	249
Languages	**9,759**	**$18,677,147**	**100.0**	**9,539**	**$18,346,429**	**100.0**	**220**	**$330,718**	**100.0**	**873**
Elementary	2,349	2,069,049	11.1	2,328	2,045,647	11.2	21	23,402	7.1	497
Secondary	5,641	12,139,327	65.0	5,485	11,930,306	65.0	156	209,021	63.2	237
Combined elementary-secondary	1,769	4,468,771	23.9	1,726	4,370,476	23.8	43	98,295	29.7	139

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[1] 48 States, District of Columbia, Guam, Puerto Rico, and the Virgin Islands had approved projects. Arizona, Wyoming, and Canal Zone did not participate.

[2] The project unit may be a county, district, township, or combination thereof.

[3] Where a single project resulted in funds approved for more than one of the subject-matter fields (science, mathematics, and modern foreign languages), the funds were prorated for each subject-matter field. Projects covering two or more subject-matter fields are included in the total projects of each field. The number of projects in this table overstates the actual number. The actual number of projects is shown in table 12.

[4] Column 2 minus column 8 equals column 5, and column 3 minus column 9 equals column 6.

[5] Minor remodeling portion of projects involving acquisition of equipment and minor remodeling. There can be no projects for minor remodeling only.

Table 9.—Distribution of Federal, State, and local funds for projects requested and approved, under title III, by subject-matter field and State: Fiscal year 1961

State or Territory	Requested projects							Approved projects						
	Total	Science	Percent	Mathematics	Percent	Modern foreign languages	Percent	Total	Science	Percent	Mathematics	Percent	Modern foreign languages	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Total	**$105,912,744**	**77,508,777**	**73.2**	**9,041,708**	**8.5**	**19,362,259**	**18.3**	**$94,846,832**	**69,492,001**	**73.3**	**8,013,582**	**8.4**	**17,341,249**	**18.3**
Alabama	1,488,718	1,164,339	78.2	247,038	16.6	77,341	5.2	1,488,718	1,164,339	78.2	247,038	16.6	77,341	5.2
Alaska	180,541	112,404	62.3	9,284	5.1	58,853	32.6	173,044	106,944	61.8	9,194	5.3	56,906	32.9
Arkansas	1,369,331	1,138,554	83.1	113,038	8.3	117,739	8.6	1,369,331	1,138,554	83.1	113,038	8.3	117,739	8.6
California	8,892,677	5,277,697	59.4	936,986	10.5	2,677,994	30.1	5,469,296	3,202,619	58.6	459,200	8.4	1,807,477	33.0
Colorado	1,001,907	658,541	65.7	89,107	8.9	254,259	25.4	749,574	476,630	63.6	71,051	9.5	201,893	26.9
Connecticut	1,135,854	715,333	63.0	94,376	8.3	326,145	28.7	1,079,766	664,644	61.6	92,068	8.5	323,054	29.9
Delaware	226,065	92,994	41.2	18,164	8.0	114,907	50.8	216,994	91,585	42.2	17,479	8.1	107,930	49.7
District of Columbia	214,622	151,123	70.4	34,240	16.0	29,259	13.6	214,622	151,123	70.4	34,240	16.0	29,259	13.6
Florida	2,303,746	1,548,756	67.2	237,263	10.3	517,727	22.5	1,930,657	1,330,514	68.9	186,768	9.7	413,375	21.4
Georgia	2,880,516	1,893,601	65.7	367,158	12.8	619,757	21.5	2,880,516	1,893,601	65.7	367,158	12.8	619,757	21.5
Hawaii	264,733	208,058	78.6	30,087	11.4	26,588	10.0	264,075	207,507	78.6	29,980	11.3	26,588	10.1
Idaho	514,563	410,294	79.7	12,617	2.5	91,652	17.8	514,563	410,294	79.7	12,617	2.5	91,652	17.8
Illinois	5,772,636	4,575,890	79.3	317,643	5.5	879,103	15.2	5,381,639	4,245,756	78.9	286,246	5.3	849,637	15.8
Indiana	3,456,941	2,669,004	77.2	227,676	6.6	560,261	16.2	3,320,510	2,567,208	77.3	207,252	6.2	546,050	16.5
Iowa	3,195,059	2,782,499	87.1	154,095	4.8	258,465	8.1	3,014,234	2,637,687	87.5	128,894	4.3	247,653	8.2
Kansas	1,604,051	1,305,395	81.4	69,883	4.3	228,773	14.3	1,511,469	1,224,155	81.0	63,774	4.2	225,540	14.8
Kentucky	2,828,588	2,087,924	73.8	383,040	13.5	357,624	12.7	2,828,588	2,087,924	73.8	383,040	13.5	357,624	12.7
Louisiana	844,140	632,115	74.9	61,336	7.3	150,689	17.8	844,140	632,115	74.9	61,336	7.3	150,689	17.8
Maine	469,919	421,728	89.7	16,448	3.5	31,743	6.8	469,919	421,728	89.7	16,448	3.5	31,743	6.8
Maryland	1,406,701	1,061,533	75.5	166,191	11.8	178,977	12.7	1,406,701	1,061,533	75.5	166,191	11.8	178,977	12.7
Massachusetts	2,294,253	1,504,846	65.6	185,806	8.1	603,601	26.3	2,274,323	1,490,858	65.6	184,411	8.1	599,054	26.3
Michigan	7,241,300	5,167,831	71.4	666,028	9.2	1,407,441	19.4	3,939,568	2,738,242	69.5	423,912	10.8	777,414	19.7
Minnesota	2,659,401	2,259,190	84.9	84,471	3.2	315,740	11.9	2,456,044	2,089,267	85.1	80,333	3.3	286,444	11.6
Mississippi	1,464,217	1,186,821	81.1	91,550	6.2	185,846	12.7	1,415,401	1,149,244	81.2	85,202	6.0	180,955	12.8
Missouri	2,030,479	1,548,178	76.2	180,198	8.9	302,103	14.9	2,030,479	1,548,178	76.2	180,198	8.9	302,103	14.9
Montana	387,062	344,317	89.0	16,053	4.1	26,692	6.9	368,101	329,796	89.6	12,163	3.3	26,142	7.1
Nebraska	1,077,750	839,815	77.9	83,082	7.7	154,853	14.4	1,046,378	822,836	78.6	81,402	7.8	142,140	13.6
Nevada	137,599	79,019	57.4	13,461	9.8	45,119	32.8	130,658	74,224	56.8	12,541	9.6	43,893	33.6
New Hampshire	378,697	187,620	49.5	29,402	7.8	161,675	42.7	371,583	182,498	49.1	27,674	7.5	161,411	43.4
New Jersey	3,701,012	3,048,290	82.3	216,992	5.9	435,730	11.8	2,610,401	2,014,458	77.2	185,229	7.1	410,714	15.7
New Mexico	1,062,992	722,251	67.9	97,694	9.2	243,047	22.9	1,001,888	678,604	67.7	91,186	9.1	232,098	23.2
New York	6,581,006	4,316,914	65.6	543,519	8.3	1,720,573	26.1	6,099,289	3,984,730	65.3	519,639	8.5	1,594,920	26.2
North Carolina	4,717,799	3,347,251	70.9	735,432	15.6	635,116	13.5	4,635,522	3,305,231	71.3	722,216	15.6	608,075	13.1
North Dakota	746,645	691,356	92.6	15,743	2.1	39,546	5.3	684,072	638,533	93.3	8,743	1.3	36,796	5.4
Ohio	6,205,881	4,766,858	76.8	376,643	6.1	1,062,380	17.1	6,205,881	4,766,858	76.8	376,643	6.1	1,062,380	17.1
Oklahoma	1,599,013	1,139,255	71.3	184,485	11.5	275,273	17.2	1,573,364	1,117,454	71.0	180,951	11.5	274,959	17.5
Oregon	1,250,417	876,919	70.1	130,003	10.4	243,495	19.5	1,198,465	851,715	71.1	116,811	9.7	229,939	19.2
Pennsylvania	4,988,957	3,496,382	70.1	345,445	6.9	1,147,130	23.0	4,909,426	3,431,846	69.9	340,491	6.9	1,137,089	23.2
Rhode Island	474,183	337,620	71.2	37,006	7.8	99,557	21.0	425,480	292,096	68.7	35,023	8.2	98,361	23.1
South Carolina	1,357,776	1,112,462	81.9	127,900	9.4	117,414	8.7	1,357,776	1,112,462	81.9	127,900	9.4	117,414	8.7
South Dakota	762,706	679,560	89.1	43,760	5.7	39,386	5.2	477,406	396,656	83.1	41,655	8.7	39,095	8.2
Tennessee	1,775,374	1,254,373	70.6	203,353	11.5	317,648	17.9	1,707,636	1,198,244	70.2	193,207	11.3	316,185	18.5
Texas	3,020,638	2,274,148	75.3	205,449	6.8	541,041	17.9	3,020,638	2,274,148	75.3	205,449	6.8	541,041	17.9
Utah	611,289	436,949	71.5	54,093	8.8	120,247	19.7	563,062	405,360	72.0	53,629	9.5	104,073	18.5
Vermont	347,116	286,394	82.5	7,845	2.3	52,877	15.2	328,807	269,096	81.9	7,334	2.2	52,377	15.9
Virginia	1,821,869	1,280,798	70.3	127,109	7.0	413,962	22.7	1,739,864	1,215,849	69.9	113,633	6.5	410,382	23.6
Washington	1,698,350	1,078,938	63.5	197,588	11.6	421,824	24.9	1,698,350	1,078,938	63.5	197,588	11.6	421,824	24.9
West Virginia	1,431,254	1,132,812	79.1	239,755	16.8	58,687	4.1	1,431,254	1,132,812	79.1	239,755	16.8	58,687	4.1
Wisconsin	3,492,748	2,711,092	77.6	176,635	5.1	605,021	17.3	3,492,748	2,711,092	77.6	176,635	5.1	605,021	17.3
Guam	64,695	54,425	84.1	5,642	8.7	4,628	7.2	64,695	54,425	84.1	5,642	8.7	4,628	7.2
Puerto Rico	449,553	422,057	93.9	27,496	6.1	----------	------	430,512	403,537	93.7	26,975	6.3	----------	------
Virgin Islands	29,405	16,254	55.3	6,400	21.8	6,751	22.9	29,405	16,254	55.3	6,400	21.8	6,751	22.9

Table 10.—Distribution of Federal, State, and local funds for projects requested and approved, under title III, by subject-matter field and State: Fiscal year 1962

State or Territory	Requested projects							Approved projects						
	Total	Science	Percent	Mathematics	Percent	Modern foreign languages	Percent	Total	Science	Percent	Mathematics	Percent	Modern foreign languages	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Total	**$107,270,702**	**77,321,527**	**72.1**	**9,564,903**	**8.9**	**20,384,272**	**19.0**	**$99,746,047**	**72,077,777**	**72.3**	**8,991,123**	**9.0**	**18,677,147**	**18.7**
Alabama	2,594,417	1,886,301	72.7	476,328	18.4	231,788	8.9	2,594,417	1,886,301	72.7	476,328	18.4	231,788	8.9
Alaska	102,676	90,156	87.8	9,016	8.8	3,504	3.4	94,930	83,089	87.5	8,382	8.8	3,459	3.7
Arkansas	1,116,742	905,028	81.1	71,776	6.4	139,938	12.5	1,116,742	905,028	81.1	71,776	6.4	139,938	12.5
California	8,661,377	5,392,503	62.3	652,198	7.5	2,616,676	30.2	5,852,652	3,417,848	58.4	492,264	8.4	1,942,540	33.2
Colorado	1,178,860	802,272	68.1	57,959	4.9	318,629	27.0	1,100,127	740,623	67.3	56,235	5.1	303,269	27.6
Connecticut	1,185,811	730,583	61.6	168,462	14.2	286,766	24.2	1,127,017	677,613	60.1	166,274	14.8	283,130	25.1
Delaware	305,144	225,830	74.0	47,866	15.7	31,448	10.3	282,572	209,008	74.0	42,467	15.0	31,097	11.0
District of Columbia	235,556	170,459	72.4	37,163	15.8	27,934	11.8	235,556	170,459	72.4	37,163	15.8	27,934	11.8
Florida	3,116,785	2,338,901	75.0	241,459	7.8	536,425	17.2	3,033,203	2,271,998	74.9	235,494	7.8	525,711	17.3
Georgia	2,936,722	1,844,135	62.8	462,315	15.7	630,272	21.5	2,936,722	1,844,135	62.8	462,315	15.7	630,272	21.5
Hawaii	494,549	348,744	70.5	78,866	16.0	66,939	13.5	471,952	345,629	73.2	76,066	16.1	50,257	10.7
Idaho	512,473	458,079	89.4	14,923	2.9	39,471	7.7	511,578	458,079	89.6	14,923	2.9	38,576	7.5
Illinois	3,099,228	2,335,210	75.4	273,859	8.8	490,159	15.8	2,897,897	2,183,347	75.4	250,466	8.6	464,084	16.0
Indiana	3,024,944	2,345,109	77.5	167,571	5.6	512,264	16.9	2,876,229	2,251,033	78.3	147,514	5.1	477,682	16.6
Iowa	3,889,432	2,863,456	73.6	456,881	11.8	569,095	14.6	3,662,743	2,783,251	76.0	417,673	11.4	461,819	12.6
Kansas	1,588,614	1,149,121	72.3	73,198	4.6	366,295	23.1	1,497,148	1,088,652	72.7	65,488	4.4	343,008	22.9
Kentucky	2,615,057	1,990,249	76.1	320,976	12.3	303,832	11.6	2,615,057	1,990,249	76.1	320,976	12.3	303,832	11.6
Louisiana	744,682	557,798	74.9	69,169	9.3	117,715	15.8	744,682	557,798	74.9	69,169	9.3	117,715	15.8
Maine	696,398	580,770	83.4	29,776	4.3	85,852	12.3	696,398	580,770	83.4	29,776	4.3	85,852	12.3
Maryland	1,534,890	1,106,763	72.1	132,626	8.6	295,501	19.3	1,534,890	1,106,763	72.1	132,626	8.6	295,501	19.3
Massachusetts	3,103,804	2,227,595	71.8	219,897	7.1	656,312	21.1	3,041,838	2,190,496	72.0	212,475	7.0	638,867	21.0
Michigan	6,019,241	4,286,465	71.2	392,463	6.5	1,340,313	22.3	3,950,948	2,797,179	70.8	267,215	6.8	886,554	22.4
Minnesota	2,528,906	2,130,192	84.2	113,376	4.5	285,338	11.3	2,478,739	2,084,436	84.1	111,202	4.5	283,101	11.4
Mississippi	1,209,792	930,809	76.9	136,356	11.3	142,627	11.8	1,149,911	894,016	77.7	126,344	11.0	129,551	11.3
Missouri	1,848,381	1,380,885	74.7	165,263	8.9	302,233	16.4	1,848,381	1,380,885	74.7	165,263	8.9	302,233	16.4
Montana	429,922	363,694	84.6	19,547	4.5	46,681	10.9	409,214	343,486	83.9	19,458	4.8	46,270	11.3
Nebraska	823,055	634,431	77.1	78,262	9.5	110,362	13.4	806,758	622,745	77.2	74,931	9.3	109,082	13.5
Nevada	140,704	95,464	67.8	17,262	12.3	27,978	19.9	137,623	93,555	68.0	16,850	12.2	27,218	19.8
New Hampshire	625,118	438,243	70.1	35,785	5.7	151,090	24.2	615,433	432,393	70.3	33,467	5.4	149,573	24.3
New Jersey	3,711,925	2,737,322	73.7	202,375	5.5	772,228	20.8	3,443,689	2,576,638	74.8	171,381	5.0	695,670	20.2
New Mexico	730,510	536,458	73.4	84,401	11.6	109,651	15.0	702,565	520,059	74.0	79,560	11.3	102,946	14.7
New York	5,985,414	3,797,881	63.4	472,254	7.9	1,715,279	28.7	5,757,379	3,652,507	63.5	450,386	7.8	1,654,486	28.7
North Carolina	4,398,871	3,122,024	71.0	621,451	14.1	655,396	14.9	4,296,426	3,064,130	71.3	598,796	13.9	633,500	14.8
North Dakota	557,231	529,021	94.9	9,173	1.7	19,037	3.4	526,934	503,802	95.6	4,896	0.9	18,236	3.5
Ohio	6,241,222	4,625,480	74.1	682,779	10.9	932,963	15.0	6,241,222	4,625,480	74.1	682,779	10.0	932,963	15.0
Oklahoma	1,714,753	1,121,145	65.4	261,508	15.2	332,100	19.4	1,689,647	1,100,438	65.1	258,063	15.3	331,146	19.6
Oregon	1,514,908	1,020,998	67.4	175,164	11.6	318,746	21.0	1,300,232	871,944	67.1	155,782	12.0	272,506	20.9
Pennsylvania	6,061,806	4,308,535	71.1	341,663	5.6	1,411,608	23.3	5,773,146	4,103,366	71.1	325,393	5.6	1,344,387	23.3
Rhode Island	549,661	401,504	73.1	45,312	8.2	102,845	18.7	499,993	355,509	71.1	42,835	8.6	101,649	20.3
South Carolina	1,209,628	973,162	80.4	130,084	10.8	106,382	8.8	1,209,628	973,162	80.4	130,084	10.8	106,382	8.8
South Dakota	648,149	470,609	72.6	81,065	12.5	96,475	14.9	636,221	463,062	72.8	77,163	12.1	95,996	15.1
Tennessee	1,751,947	1,308,738	74.7	113,868	6.5	329,341	18.8	1,699,552	1,263,517	74.3	109,878	6.5	326,157	19.2
Texas	6,614,850	5,040,576	76.2	457,596	6.9	1,116,678	16.9	6,614,850	5,040,576	76.2	457,596	6.9	1,116,678	16.9
Utah	601,968	477,542	79.3	51,774	8.6	72,652	12.1	590,090	466,136	79.0	51,342	8.7	72,612	12.3
Vermont	269,128	213,746	79.4	12,748	4.7	42,634	15.9	250,890	200,023	79.7	11,355	4.5	39,512	15.8
Virginia	3,046,388	2,294,929	75.3	210,874	6.9	540,585	17.8	2,906,142	2,176,638	74.9	194,838	6.7	534,666	18.4
Washington	2,051,155	1,236,561	60.3	218,940	10.7	595,654	29.0	2,051,155	1,236,561	60.3	218,940	10.7	595,654	29.0
West Virginia	1,217,727	834,214	68.5	237,774	19.5	145,739	12.0	1,217,727	834,214	68.5	237,774	19.5	145,739	12.0
Wisconsin	1,322,169	1,062,906	80.4	70,483	5.3	188,780	14.3	1,322,169	1,062,906	80.4	70,483	5.3	188,780	14.3
Guam	53,093	27,130	51.1	12,895	24.3	13,068	24.6	40,818	24,444	59.9	11,799	28.9	4,575	11.2
Puerto Rico	610,770	532,402	87.2	47,681	7.8	30,687	5.0	610,066	532,402	87.3	46,977	7.7	30,687	5.0
Virgin Islands	44,149	39,399	89.3	2,443	5.5	2,307	5.2	44,149	39,399	89.3	2,443	5.5	2,307	5.2

Table 11.—Number of approved projects under title III for acquisition of equipment and minor remodeling in specified subject fields, by State: Fiscal year 1961

State or territory	Total	Science only	Mathematics only	Modern foreign languages only	Science and mathematics	Science and modern foreign languages	Mathematics and modern foreign languages	Science, mathematics, and modern foreign languages
1	2	3	4	5	6	7	8	9
Total[1]	**45,953**	**25,017**	**8,956**	**5,844**	**2,328**	**486**	**19**	**3,303**
Alabama	2,380	1,298	924	158	--------	--------	--------	--------
Alaska	32	20	6	6	--------	--------	--------	--------
Arkansas	1,102	736	258	108	--------	--------	--------	--------
California	1,074	617	159	267	17	5	--------	9
Colorado	217	124	28	46	16	1	--------	2
Connecticut	414	243	88	83	--------	--------	--------	--------
Delaware	33	3	1	4	9	3	--------	13
District of Columbia	357	162	159	36	--------	--------	--------	--------
Florida	198	101	4	11	16	5	--------	61
Georgia	6,122	3,479	1,356	674	154	26	1	432
Hawaii	644	418	158	68	--------	--------	--------	--------
Idaho	200	141	28	31	--------	--------	--------	--------
Illinois	1,563	1,092	247	224	--------	--------	--------	--------
Indiana	901	486	235	180	--------	--------	--------	--------
Iowa	1,092	706	279	107	--------	--------	--------	--------
Kansas	820	555	143	122	--------	--------	--------	--------
Kentucky	1,151	684	294	173	--------	--------	--------	--------
Louisiana	1,140	731	264	145	--------	--------	--------	--------
Maine	388	238	100	50	--------	--------	--------	--------
Maryland	627	416	159	52	--------	--------	--------	--------
Massachusetts	861	527	133	154	37	--------	--------	10
Michigan	589	182	2	5	134	69	1	196
Minnesota	1,015	647	247	121	--------	--------	--------	--------
Mississippi	390	161	7	16	112	27	--------	67
Missouri	1,442	679	34	47	426	77	6	173
Montana	249	144	3	20	59	11	1	11
Nebraska	563	352	135	76	--------	--------	--------	--------
Nevada	130	61	45	24	--------	--------	--------	--------
New Hampshire	453	247	105	86	3	3	1	8
New Jersey	369	116	1	4	85	18	--------	145
New Mexico	75	13	1	2	13	4	--------	42
New York	1,440	621	403	416	--------	--------	--------	--------
North Carolina	2,111	1,022	561	387	70	8	--------	63
North Dakota	340	266	52	22	--------	--------	--------	--------
Ohio	1,426	546	22	65	311	108	4	370
Oklahoma	564	222	1	7	207	28	1	98
Oregon	505	340	80	65	8	2	--------	10
Pennsylvania	3,801	1,275	229	432	387	41	2	1,435
Rhode Island	102	60	21	21	--------	--------	--------	--------
South Carolina	2,251	1,469	506	276	--------	--------	--------	--------
South Dakota	365	218	98	46	1	--------	--------	2
Tennessee	247	144	51	52	--------	--------	--------	--------
Texas	956	500	12	2	248	48	2	144
Utah	938	477	261	193	--------	--------	--------	7
Vermont	400	252	73	75	--------	--------	--------	--------
Virginia	988	514	251	223	--------	--------	--------	--------
Washington	642	331	137	152	15	2	--------	5
West Virginia	586	351	162	73	--------	--------	--------	--------
Wisconsin	1,279	667	382	230	--------	--------	--------	--------
Guam	10	6	1	3	--------	--------	--------	--------
Puerto Rico	398	352	46	--------	--------	--------	--------	--------
Virgin Islands	13	5	4	4	--------	--------	--------	--------

[1] Arizona did not participate in title III. Wyoming withdrew and did not report.

NOTE

Explanation of the variance between the total number of 45,953 projects reported in tables 11 and 14 and the total number of 55,392 projects reported in table 7 appears below:

If each subject-matter field represented in table 11 is counted as a "project" when more than one field is included in an approved project, then the total number of projects becomes 55,392 for purposes of financial reporting, by field of study, as reported in table 7.

The project breakdowns for the total of 45,953 shown in tables 13 and 14 are the following:

Project	*Number*	*Percent of projects*	*Total cost* [1]	*Percent of cost*
Science	25,017	54.4	$69,492,001	73.3
Mathematics	8,956	19.5	8,013,582	8.4
Languages	5,844	12.7	17,341,249	18.3
Science and mathematics	2,328	5.1	--------	--------
Science and languages	486	1.1	--------	--------
Mathematics and languages	19	.0	--------	--------
Science, mathematics, and languages	3,303	7.2	--------	--------
Total	[2] 45,953	[3] 100.0	[4] $94,846,832	100.0

[1] In the case of projects involving more than one field, an appropriate assignment of costs to the respective fields was made by the States and is shown in this column.

[2] See table 11.

[3] The figure 55,392 appearing in table 7 is the result of counting each field represented in the project as a separate "project" in cases where more than one field is included. This figure is arrived at as follows:

Science only	25,017
Mathematics only	8,956
Languages only	5,844
Science and mathematics (2,328×2)	4,656
Science and languages (486×2)	972
Mathematics and languages (19×2)	38
Science, mathematics, and languages (3,303×3)	9,909
Total	55,392

[4] Includes Federal, State, and local funds.

Table 12.—Number of approved projects under title III for acquisition of equipment and minor remodeling in specified subject fields, by State: Fiscal year 1962

State or territory	Total	Science only	Mathematics only	Modern foreign languages only	Science and mathematics	Science and modern foreign languages	Mathematics and modern foreign languages	Science, mathematics, and modern foreign languages
1	2	3	4	5	6	7	8	9
Total [1]	**51,752**	**28,926**	**11,161**	**6,922**	**1,906**	**502**	**20**	**2,315**
Alabama	4,572	2,526	1,636	410				
Alaska	38	24	8	6				
Arkansas	970	625	220	125				
California	935	515	131	245	20	5		19
Colorado	257	164	28	56	4	1		4
Connecticut	495	274	113	108				
Delaware	38	9	1		9	2		17
District of Columbia	362	164	162	36				
Florida	544	220	18	49	62	32	2	161
Georgia	*6,622*	*3,563*	*1,467*	*867*	*122*	*22*	*2*	*582*
Hawaii	1,045	624	280	141				
Idaho	148	98	28	22				
Illinois	835	513	191	131				
Indiana	869	497	202	170				
Iowa	1,244	733	394	117				
Kansas	738	495	115	128				
Kentucky	1,344	886	287	171				
Louisiana	1,056	644	274	138				
Maine	511	324	120	67				
Maryland	783	514	194	75				
Massachusetts	997	613	188	196				
Michigan	468	138	2	10	83	50	1	184
Minnesota	1,228	686	373	169				
Mississippi	426	172	12	19	123	21	1	78
Missouri	1,109	519	24	20	284	94	5	163
Montana	332	216	14	29	44	15	1	13
Nebraska	653	374	182	97				
Nevada	102	59	26	17				
New Hampshire	608	337	148	105	8	3		7
New Jersey	392	111	1	2	95	25	1	157
New Mexico	678	414	155	109				
New York	1,447	597	401	449				
North Carolina	2,047	974	513	394	84	9	1	72
North Dakota	482	423	40	19				
Ohio	1,739	600	48	42	419	145	1	484
Oklahoma	548	161	9	6	218	21		133
Oregon	548	352	100	71	17	1		7
Pennsylvania	3,834	2,382	708	736				8
Rhode Island	130	74	28	28				
South Carolina	2,390	1,601	518	271				
South Dakota	583	387	120	61	13			2
Tennessee	252	143	49	60				
Texas	1,108	516	19	9	295	53	5	211
Utah	824	474	230	120				
Vermont	446	261	98	87				
Virginia	1,560	926	363	271				
Washington	635	325	153	136	4	4		13
West Virginia	1,082	670	274	138				
Wisconsin	960	510	270	180				
Guam	5			3	2			
Puerto Rico	721	495	224	2				
Virgin Islands	12	4	4	4				

[1] Arizona did not participate in title III. Wyoming withdrew and did not report.

NOTE

Explanation of the variance between the total number of 51,752 projects reported in tables 13 and 14 and the total number of 58,810 projects reported in table 8 appears below:

If each subject-matter field represented in table 12 is counted as a "project" when more than one field is included in an approved project, then the total number of projects becomes 58,810 for purposes of financial reporting by fields of study, as reported in table 8.

The project breakdowns for the total of 51,752 shown in tables 13 and 14 are the following:

Projects	*Number*	*Percent of projects*	*Total [1] cost*	*Percent of cost*
Science	28,926	55.9	$72,077,777	72.3
Mathematics	11,161	21.5	8,991,123	9.0
Languages	6,922	13.4	18,677,147	18.7
Science and mathematics	1,906	3.7		
Science and languages	502	1.0		
Mathematics and languages	20	.0		
Science, mathematics, and languages	2,315	4.5		
Total	[2] 51,752	[3] 100.0	[4] 99,746,047	100.0

[1] In the case of projects involving more than one field, an appropriate assignment of costs to the respective fields was made by the States and is shown in this column.

[2] See table 12

[3] The figure 58,810 appearing in table 8 is the result of counting each field represented in the project as a separate "project" in cases where more than one field is included. This figure is arrived at as follows:

Science only	28,926
Mathematics only	11,161
Languages only	6,922
Science and mathematics (1,906×2)	3,812
Science and languages (502×2)	1,004
Mathematics and languages (20×2)	40
Science, mathematics, and languages (2,315×3)	6,945
Total	58,810

[4] Includes Federal, State, and local funds.

Table 13.—Number and percentage distribution of approved projects under title III for acquisition of equipment and minor remodeling, by cost: Fiscal years 1961 and 1962

Cost	Fiscal year 1961		Fiscal year 1962	
	Number of approved projects	Percent of total	Number of approved projects	Percent of total
1	2	3	4	5
Total	**45,953**	**100.0**	**51,752**	**100.0**
0 to $99	7,549	16.4	10,148	19.6
$100 to $199	5,458	11.9	6,862	13.3
200 to 399	7,322	15.9	8,472	16.4
400 to 599	4,994	10.9	5,421	10.1
600 to 799	3,272	7.1	3,557	6.9
800 to 999	2,485	5.4	2,437	4.7
1,000 to 1,499	3,803	8.3	3,886	7.5
1,500 to 2,999	4,649	10.1	4,891	9.4
3,000 to 4,999	2,365	5.2	2,329	4.5
5,000 to 9,999	2,243	4.9	2,173	4.2
10,000 to 19,999	1,159	2.5	1,140	2.2
20,000 to 34,999	425	.9	392	.8
35,000 to 49,999	109	.2	113	.2
50,000 and over	120	.3	111	.2

Table 14.—Number and percentage distribution of approved projects under title III for acquisition of equipment and minor remodeling, by average daily membership: Fiscal years 1961 and 1962

Average daily membership	Fiscal year 1961		Fiscal year 1962	
	Number of approved projects	Percent of total	Number of approved projects	Percent of total
1	2	3	4	5
Total	**45,953**	**100.0**	**51,752**	**100.0**
0 to 99	2,676	5.8	3,106	6.0
100 to 299	9,528	20.8	9,889	19.1
300 to 999	17,605	38.3	18,805	36.3
1,000 to 4,999	11,500	25.0	13,451	26.0
5,000 to 9,999	2,399	5.2	3,054	5.9
10,000 to 49,999	1,981	4.3	2,570	5.0
50,000 to 99,999	190	.4	772	1.5
100,000 and over	74	.2	105	.2

Table 15.—Loans approved under title III to nonprofit private schools, by State: Fiscal years 1961 and 1962

School, by State	Loans approved by fiscal year	
	1961	1962
Total	**$651,485**	**$671,727**
ARIZONA		
Good Shepherd School for Girls, Phoenix	19,475	
CALIFORNIA		
Los Angeles Pacific High School, Los Angeles		37,373
Montclair Schools, Tarzana	11,800	
Woodman High School, Los Angeles	9,700	
CONNECTICUT		
Xavier High School, Middletown		50,250
DISTRICT OF COLUMBIA		
Mackin High School, Washington	3,500	
FLORIDA		
Greater Miami Hebrew Academy, Miami Beach		36,000
HAWAII		
St. Louis High School, Honolulu		15,970
ILLINOIS		
Assumption High School, E. St. Louis		24,432
Chicago Jewish Academy, Chicago		5,000
Christian Brothers High School, Quincy	21,000	
Christian Brothers High School, Quincy	8,200	
De La Salle High School, Chicago	32,600	
The Elgin Academy, Elgin		5,300
Loyola Academy, Wilmette	6,500	
Mater Dei High School, Breese	12,200	
St. Joseph High School, Westchester	33,500	
St. Mel High School, Chicago		13,500
St. Patrick Central High School, Kankakee		4,600
St. Viator High School, Arlington Heights		53,000
INDIANA		
Brebeuf Preparatory School, Indianapolis		22,300
IOWA		
Newman High School, Mason City	21,449	
KANSAS		
Maur Hill High School, Atchison	30,000	
KENTUCKY		
St. Francis De Sales High School, Louisville	5,000	
St. Xavier High School, Louisville	32,500	

Table 15.—Loans approved under title III to nonprofit private schools, by State: Fiscal years 1961 and 1962—Continued

School, by State	Loans approved by fiscal year	
	1961	1962
MAINE		
Berwick Academy, South Berwick	$10,806	----------
MARYLAND		
Calvert Hall High School, Towson	20,000	----------
Mount de Sales Academy, Catonsville	----------	$5,000
Mount St. Joseph High School, Baltimore	----------	33,500
MASSACHUSETTS		
Boston Lubavitz Yeshiva, Roxbury	19,000	----------
Don Bosco Technical School, Boston	10,950	----------
St. John's Preparatory School, Shrewsbury	----------	16,000
Xaverian Brothers High School, Westwood	----------	52,600
MICHIGAN		
City & Country School of Bloomfield Hills, Bloomfield Hills	2,000	----------
City & Country School of Bloomfield Hills, Bloomfield Hills	1,180	----------
City & Country School of Bloomfield Hills, Bloomfield Hills	----------	8,900
The St. Paul Seminary of Saginaw, Saginaw	1,500	----------
MISSOURI		
St. Agnes Regional High School, Springfield	----------	2,900
MONTANA		
Girls Central High School, Butte	8,700	----------
NEBRASKA		
Aquinas High School, David City	1,140	----------
St. John Vianney Seminary, Elkhorn	4,000	----------
St. John Vianney Seminary, Elkhorn	----------	3,000
NEW HAMPSHIRE		
Holderness School for Boys, Plymouth	5,000	----------
St. Thomas Aquinas High School, Manchester	36,500	----------
NEW JERSEY		
Our Lady of Mercy Girls' Academy, Newfield	----------	10,500
NEW YORK		
Baldwin School of New York New York	----------	8,698
The Berkeley Institute, Brooklyn	----------	6,600
The Berkeley Institute, Brooklyn	----------	1,770
Beth Jacob-Beth Miriam School for Girls, Bronx	----------	6,336
Harbor Country Day School, St. James Long Island	2,742	----------
Hebrew Academy of Nassau County, West Hempstead	3,425	----------
Holy Family High School, Massena	----------	2,690
Kamenitzer Mesivta of Boro Park, Brooklyn	6,570	----------
NEW YORK—Continued		
Long Island Lutheran High School, Glen Head	----------	$26,600
Nardin Academy High School, Buffalo	----------	12,000
New Lincoln School, New York	$9,950	----------
Notre Dame High School, Utica	----------	33,500
St. Francis Preparatory School, Brooklyn	22,000	----------
Salesian Junior Seminary, Goshen	----------	31,540
Scarborough School, Scarborough	----------	78,500
Yeshiva of Crown Heights, Brooklyn	----------	11,283
NORTH DAKOTA		
Oak Grove Lutheran High School, Fargo	14,848	----------
St. Gertrude High School, Raleigh	3,950	----------
OHIO		
McAuley High School, Cincinnati	50,000	----------
Regina High School, Cincinnati	----------	12,000
St. Ursula Academy, Cincinnati	----------	2,000
Summit Country Day School, Cincinnati	----------	5,300
OKLAHOMA		
St. Gregory's High School, Shawnee	15,000	----------
PUERTO RICO		
Academia Santa Maria, Ponce	2,400	----------
RHODE ISLAND		
Providence Hebrew Day School, Providence	----------	8,600
TENNESSEE		
Tennessee Military Institute, Sweetwater	----------	10,000
TEXAS		
The Allen Military Academy, Bryan	5,400	----------
Jesuit High School of El Paso, El Paso	35,000	----------
Jesuit High School of El Paso, El Paso	12,000	----------
Keystone School, San Antonio	----------	4,500
St. Joseph's School, Yoakum	----------	2,000
VIRGINIA		
Cathedral Central High School, Richmond	----------	2,185
The Massanutten Academy, Woodstock	4,200	----------
Norfolk Catholic High School, Norfolk	30,500	----------
Roanoke Catholic High School, Roanoke	13,500	----------
WISCONSIN		
Aquinas High School, La Crosse	----------	5,500
Lourdes High School, Oshkosh	21,000	----------
Luther High School, Onalaska	1,300	----------
St. Gregory High School, St. Nazianz	5,000	----------
Xavier High School, Appleton	24,500	----------

Table 16.—Number and percentage distribution of graduate programs approved and of fellowships awarded under title IV, by subject-matter field: Fiscal years 1961 and 1962

Field	Programs approved				Fellowships awarded			
	Number		Percent of total		Number		Percent of total	
	1961	1962	1961	1962	1961	1962	1961	1962
1	2	3	4	5	6	7	8	9
Total	**525**	**568**	**100**	**100**	**1,500**	**1,500**	**100**	**100**
Humanities	115	106	22	19	393	316	26	21
Education	42	54	8	9	122	143	8	10
Social sciences	134	131	25	23	411	376	27	25
Biological sciences	87	100	17	18	195	243	13	16
Physical sciences	99	110	19	19	233	256	16	17
Engineering	48	67	9	12	146	166	10	11

Table 17.—Number of graduate fellowships awarded under title IV in fiscal years 1959, 1960, 1961, and 1962 for academic years 1959–60, 1960–61, 1961–62, and 1962–63, respectively, by State, institution, and program title

Program, by State and institution	Number of fellowships, by academic year			
	1959–60	1960–61	1961–62	1962–63
1	2	3	4	5
ALABAMA	19	25	28	27
Auburn University	8	11	9	9
Agronomy and Soils	----	3	4	3
Chemistry	----	4	2	----
Mathematics	8	4	3	2
Zoology	----	----	----	4
University of Alabama	11	14	19	18
Biology	6	----	2	2
Education: Curriculum Study and Research	----	----	4	3
Educational Psychology and Guidance	----	4	3	3
Engineering Mechanics	----	----	----	3
Hispanic History	----	3	2	----
Mathematics	5	2	2	----
Physics	----	----	3	2
Political Science	----	----	----	3
Romance Languages	----	5	3	2
ARIZONA	17	26	28	30
Arizona State University	----	5	6	9
Chemistry	----	----	----	3
Counseling and Guidance	----	5	4	4
Elementary Education	----	----	2	2
University of Arizona	17	21	22	21
Astronomy	----	----	4	3
Civil Engineering	5	4	----	4
English	----	----	4	2
History	----	4	3	----
Mathematics	4	3	2	2
Nuclear Engineering	----	----	3	3
Physical Metallurgy	3	2	----	----
Physics	5	3	3	2
Plant Pathology	----	----	----	3
Spanish	----	5	3	2
ARKANSAS	13	22	14	11
University of Arkansas	13	22	14	11
Botany and Bacteriology	2	1	2	2
Business Administration	----	7	3	4
Comparative Literature	----	3	----	----
Electrical Engineering	----	2	2	----
English	5	4	2	3
Physics	2	1	1	2
Psychology	4	2	2	----
Zoology	----	2	2	----
CALIFORNIA	75	110	99	95
California Institute of Technology	2	2	4	2
Hydrodynamics of Ground Water Flow	----	----	2	----
Mathematics	2	2	2	2
Claremont University College	9	19	12	11
Economics	4	4	2	2
English and American Literature	5	4	1	----
General and Experimental Psychology	----	3	2	3
Government	----	4	1	2
International Relations	----	----	----	3
Philosophy	----	----	3	1
Religion: Oriental and Christian	----	4	3	----
Occidental College	9	9	4	----
Comparative Literature	5	4	2	----
History and Government	4	5	2	----
Stanford University	18	26	23	23
American Literature	6	3	----	3
Classics	3	3	2	----
French, German, Spanish	9	6	9	6
Logic and Mathematics	----	----	4	2
Mathematical Psychology	----	----	----	4
Modern European History	----	----	----	4
Quantitative Economics	----	----	4	3
Slavics	----	7	----	----
Sociology	----	3	2	----
Soviet Studies	----	4	2	1
University of California, Berkeley	12	12	14	14
African Studies	----	4	----	3
Child Development	2	2	----	----
Econometrics and Mathematical Economics	----	----	3	1
History of Science	----	----	----	2
Italian	----	----	5	3
Mathematics	5	----	----	----
Modern Chinese	3	----	----	----
Political Science	----	----	----	4
Rock Physics	----	2	2	1
Scandinavian Language and Literature	2	----	2	----
Social Welfare	----	4	2	----
University of California, Davis	2	2	7	7
Chemistry	----	----	----	2
Food Science and Technology	2	----	3	----
Irrigation, Drainage, and Water Resources	----	2	1	2
Mathematics	----	----	2	1
Physics	----	----	----	2
Plant Pathology: Genetics	----	----	1	----
University of California, Los Angeles	15	7	12	12
Archeology	3	----	----	----
Business Administration	5	----	----	----
Comparative Education	----	----	4	----
Engineering Design	----	----	----	2
Functional Analysis, Algebra and Geometry	2	2	2	----
Germanic Languages	----	----	----	7
Physics	5	----	----	1
Quantitative Economics	----	----	2	----
Spanish and Portuguese	----	5	4	2

Table 17.—Number of graduate fellowships awarded under title IV in fiscal years 1959, 1960, 1961, and 1962 for academic years 1959–60, 1960–61, 1961–62, and 1962–63, respectively, by State, institution, and program title—Continued

Program, by State and institution	Number of fellowships, by academic year			
	1959–60	1960–61	1961–62	1962–63
1	2	3	4	5
University of California, Riverside	-----	-----	-----	3
Chemistry	-----	-----	-----	3
University of California, San Diego	-----	6	2	-----
Chemistry	-----	-----	2	-----
Geophysics	-----	4	-----	-----
Physics	-----	2	-----	-----
University of California, Santa Barbara	-----	-----	-----	5
Political Science	-----	-----	-----	2
Western Hemisphere Studies	-----	-----	-----	3
University of Southern California	8	27	21	18
Classical Languages	-----	-----	5	-----
Comparative Literature	-----	-----	-----	6
English	8	8	-----	3
German	-----	5	2	1
History	-----	8	4	1
Philosophy	-----	6	-----	2
Public Administration	-----	-----	4	2
Spanish	-----	-----	6	3
COLORADO	24	41	38	27
Colorado State University	7	8	10	7
Agronomy: Soil Science	2	2	2	-----
Botany and Plant Pathology	3	2	1	-----
Civil and Irrigation Engineering	-----	2	-----	-----
Genetics	-----	-----	2	2
Pathology and Bacteriology	-----	2	3	3
Watershed Management	2	-----	2	2
University of Colorado	12	21	20	16
Astro-geophysics	1	2	1	-----
Comparative Literature	5	7	4	3
Economics	6	7	2	4
Electrical Engineering	-----	-----	6	3
Physiological Ecology of Plants and Animals	-----	-----	4	3
Public Administration	-----	5	3	3
University of Denver	5	12	8	4
American History	5	5	4	-----
Education	-----	7	4	2
Experimental Psychology	-----	-----	-----	2
CONNECTICUT	16	18	20	15
University of Connecticut	16	18	20	15
Economics	-----	-----	-----	3
English	8	5	3	3
German	-----	-----	4	3
History	-----	-----	3	-----
International Relations	3	3	2	-----
Political Science	-----	-----	2	3
Romance Languages	2	6	4	3
Sociology	3	4	2	-----
DELAWARE	5	14	9	9
University of Delaware	5	14	9	9
Biological Sciences	-----	3	3	4
Chemical Engineering	3	3	-----	-----
Chemical Engineering and Metallurgy	-----	-----	-----	2
Chemistry	2	-----	-----	-----
History	-----	4	2	1
Mechanical Engineering: Non-Linear Methods	-----	4	4	2
DISTRICT OF COLUMBIA	23	31	19	20
American University	5	7	5	5
Area Studies: South and Southeast Asia	-----	-----	-----	5
National, State, and Local Government	5	7	5	-----
Catholic University of America	2	2	2	2
Statistics and Probability Theory	2	2	2	2
Georgetown University	5	7	2	5
Atomic and Molecular Spectroscopy	-----	-----	2	-----
Linguistics	-----	-----	-----	5
Russian Area Studies	5	7	-----	-----
George Washington University	8	13	8	4
Germanic Language and Literature	-----	5	4	2
Romance Language and Literature	8	8	4	2
Howard University	3	2	2	4
Physics	3	2	2	2
Zoology	-----	-----	-----	2
FLORIDA	31	28	33	30
Florida State University	20	11	13	10
Geology	-----	-----	3	3
Government	-----	-----	3	4
History	6	4	2	-----
Humanities	8	4	-----	-----
Mathematical and Applied Statistics	-----	-----	-----	3
Mathematics	6	3	2	-----
Sociology: Marriage and the Family	-----	-----	3	-----
University of Florida	4	12	13	14
Botany	-----	4	2	2
Cellular Biology	-----	-----	-----	2
Chemical Physics	-----	5	3	-----
College Science Teaching	-----	-----	3	3
Electrical Engineering	4	-----	-----	-----
English	-----	-----	-----	5
Entomology	-----	3	2	2
Political Science: Urban Problems	-----	-----	3	-----

University of Miami	7	5	7	6
Biochemistry	1	2		
Chemistry			2	2
Marine Sciences		3	5	2
Psychology	6			
Zoology				2
GEORGIA	22	36	43	34
Emory University	9	19	15	13
American Literature				4
Comparative Literature		4	3	2
European History		5	3	3
Inorganic Chemistry	2	2	2	2
Old Testament	3			
Philosophy	4	4	3	2
Victorian Literature		4	4	
Georgia Institute of Technology	7	5	9	7
Aero-Thermodynamics				3
Chemistry	3	2	1	
Mechanical Engineering			6	3
Physics	4	3	2	1
University of Georgia	6	12	19	14
Botany			3	2
Ecology		3		
Fundamental Chemistry			4	3
Geography			3	2
Mathematical Analysis		3		2
Microbiology	3		1	
Modern European History			3	
Physics	3	3	2	2
Science Education		3	3	3
HAWAII	8	10	11	12
University of Hawaii	8	10	11	12
Agronomy and Soil Science	2	1	1	
Biochemistry	3	3	2	
Botany				2
Chemistry		3	2	2
Genetics			1	1
Pacific and East Asian History			4	5
Psychology	3	3	1	2
IDAHO	15	17	12	9
University of Idaho	15	17	12	9
Applied Mathematics and Statistics	3	3	2	1
Botany	2			
Chemical Engineering			2	2
Chemistry	2	2	2	2
Education: School Administration		2	2	2
Forestry	3	2	2	
History	3	4	2	
Political Science	2	4		2
ILLINOIS	35	59	58	78
Illinois Institute of Technology	3	2	3	5
Mechanical Engineering: Aircraft and Missile Propulsion	3	2	3	2
Solid Mechanics of Modern Engineering Materials				3
Loyola University	4	11	7	6
Behavioral Psychology	4	4	2	
English				3
History: Studies of the Atlantic Community				3
Literature of the Drama		3	2	
Origins of Western Civilization and Culture		4	3	

Northwestern University	6	3	9	18
African Affairs				5
Chemical Engineering: Transport Processes			3	
Civil Engineering: Urban Transport Planning			3	
Dramatic Arts	2			
Electrical Materials	3	3		
German				3
Industrial Engineering			3	3
Mechanical Engineering: High Temperature Chemically Reacting Flow Systems				3
Philosophy of Education	1			
Quantitative Economics				4
Southern Illinois University	4	2	2	4
Elementary Education		2	2	2
Microbiology	4			2
University of Chicago	8	28	14	23
Anthropology		7	3	3
Business				2
Comparative Political Systems				3
Education: Measurement, Evaluation, and Statistical Analysis				3
Educational Administration			4	2
Educational Psychology	3		3	2
Far Eastern Languages	5	5		
Linguistics				5
Russian Area Studies		8	4	
Sociology				3
South Asia		8		
University of Illinois	10	13	23	22
Astronomy	1			
Business Administration	5		3	
Civil Engineering: Structural Mechanics		3	2	3
Educational Psychology		5	3	3
Experimental Psychology	4		3	2
Latin American Language and Literature				3
Linguistics			4	4
Nuclear Engineering				2
Quantitative Economic Analysis		5	3	3
Sanitary Engineering			3	
Speech Therapy			2	2
INDIANA	34	55	42	48
Ball State Teachers College			3	2
Education			3	2
Indiana University	20	30	22	17
American Studies: Folklore		5	3	
Asian Area Studies		6	4	
Biochemistry			3	3
Classics		3	2	
Comparative Literature				
History and Logic of Science		4	4	4
International Business Administration	5	4	1	
Production Management			4	2
Quantitative Business Analysis	5	4	1	2
Russian and East European Institute	10	4		
Purdue University	8	19	11	12
College Science Teaching		6	5	3
Engineering Materials		3		
Entomology				2
Nuclear Engineering				2
Quantitative Economics	4	4	4	2
Solid State Physics	4	2	2	
Speech Pathology and Audiology		4		3

Table 17.—Number of graduate fellowships awarded under title IV in fiscal years 1958, 1960, 1961, and 1962 for academic years 1950-60, 1960-61, 1961-62, and 1962-63, respectively, by State, institution, and program title—Continued

Program, by State and institution	Number of fellowships, by academic year			
	1959-60	1960-61	1961-62	1962-63
1	2	3	4	5
Purdue University and DePauw University (Cooperative Program)				6
College Science Teaching				3
Organic Chemistry				3
University of Notre Dame	6	6	6	11
Chemical Engineering				3
English			3	2
Philosophy: Symbolic Logic		6	3	2
Political Science: Soviet Union, Eastern Europe and Communism				4
IOWA	12	36	35	31
Iowa State University	2	6	6	11
Electrical Engineering Materials		4	4	3
Interaction of Radiation and Materials				2
Quantitative Economics				3
Zoology, Entomology, Physiology	2	2	2	3
University of Iowa	10	30	29	20
Art History			2	
Classical Studies [1]		6	6	
Contemporary Religion			2	
Dramatic Art	4	3	2	
English				5
Far Eastern, Russian, and German History		3	2	2
International Relations and Comparative Government		3	3	2
Mathematics		5	3	2
Philosophy		2	2	1
Physiological Psychology		2	1	3
Social Psychology	3		2	
Political Science: Latin America				2
Sociology and Anthropology: Urban Community Studies	3	3	2	1
Speech and Hearing Science		3	2	2
KANSAS	22	29	36	28
Kansas State University	8	13	17	19
Agriculture: Cereal Technology			2	2
Botany		2		
Chemical Engineering		2	2	
Chemistry				3
Comparative Physiological Psychology			2	2
Economics				3
English			5	3
Entomology		3		
Experimental Stress Analysis and Structural Dynamics			3	2
Mechanical Engineering	2	2		2
Theoretical Physics	2	2	1	1
Veterinary Medicine: Pathology, Physiology	2	2	2	1
Zoology	2			
University of Kansas	14	16	15	9
Applied Mathematics	3	4	2	4
University of Kansas—Continued				
Bacteriology	3	2		
Engineering Mechanics			3	2
English: Folklore	3	5	2	
German	5	5	3	3
Speech and Drama			5	
University of Wichita			4	
Speech and Hearing			4	
KENTUCKY	15	13	10	14
University of Kentucky	13	11	8	14
Experimental Psychology				3
History	2	2	2	2
Mathematical Economics and Econometrics	3	3	2	2
Microbiology				2
Sociology: Demography			2	2
Solid State Physics	1	1		
Topology	2	2		1
World Affairs	5	3	2	2
University of Louisville	2	2	2	
Biology: Ecology and Economics of Flowing Waters		2	2	
Polymer Chemistry	2			
LOUISIANA	27	45	29	28
Louisiana State University	8	22	5	10
Business Administration and Economics		9		
English				6
Foreign Language and Linguistics	8	7	3	2
Mathematical Analysis		6	2	2
Tulane University	19	23	24	18
Anthropology			4	
Chemical Engineering				3
Comparative Government				3
Economics	8	4	3	4
French and Italian	4	4	2	
German		4	2	
Mathematics			1	
Mechanical Engineering				2
Modern European History			5	3
Philosophy		4	4	3
Physics	2			
Spanish and Portuguese	5	3		
Theatre and Speech		4	3	
MAINE	10	4	7	5
University of Maine	10	4	7	5
American History	5		3	
Animal Nutrition			2	2
Chemistry	5	4	2	
General Experimental Psychology				3

MARYLAND	16	25	21	23
Johns Hopkins University	11	16	7	14
Fine Arts	[1] 1	2	2	
Geography				3
International Studies				3
Material Sciences				2
Oceanography			2	
Philosophy	5	7		4
Political Economy	5			
Political Science			3	2
Romance Languages		7		
University of Maryland	5	9	14	9
Economic Development	5		2	2
High Energy Physics			4	2
Higher Education		5	4	3
Philosophy		4	4	2
MASSACHUSETTS	30	46	56	51
Boston College		6	3	2
Economics		6		
Physics			3	2
Boston University	7	7	9	7
African Studies	[illegible]	4	2	4
Education: School Psychology			4	3
Philosophy of Education	3	3		
Sociology and Anthropology			3	
Brandeis University	4	11	12	6
English and American Literature			3	
Experimental Physics and Astrophysics		6		3
History of Ideas	4			
Mathematics		5		3
Near Eastern and Judaic Studies			5	
Physical and Inorganic Chemistry			4	
Clark University				5
American Colonial and Early National U.S. History				5
Massachusetts Institute of Technology	4	10	11	8
City and Regional Planning		4	3	
Industrial Management			4	4
Linguistics				4
Political Science	4	6	4	
Tufts University	3	1	7	7
Biology		1		
Chemistry				3
Classics			2	
Experimental Psychology	3		2	2
Physics			3	2
Tufts University, Fletcher School of Law and Diplomacy		3	2	2
International Affairs		3	2	2
University of Massachusetts	11	5	8	11
Botany	3			
Chemistry	2	3	2	
French				5
General Experimental Psychology	3		2	2
Government			2	2
Zoology	3	2	2	2
Worcester Polytechnic Institute	1	3	4	3
Chemical Engineering		1	2	2
Chemistry	1	2		
Physics			2	1
MICHIGAN	19	50	61	59
Michigan State University	8	18	25	23
Agriculture in International Economic Development			5	3
Business Administration	5	6		
Comparative Literature			4	2
Econometrics			4	2
Educational Media				4
Educational Research Design and Development			3	2
French, German and Spanish			6	
History of International Relations				3
Horitcultural Nutrition, Biochemistry, and Biophysics		2	1	
Mathematics	3			
Nuclear Physics		3		2
Paleobotany				2
Special Education		4	2	3
Zoology		3		
University of Michigan	8	29	22	21
Cartography				3
Communications Sciences		5	4	1
Comparative Education: Asian Program		2	2	2
Comparative Education: European Program	2	2	2	2
Development Economics		7	4	4
Digital Computing	2			
Electrical Engineering: Adaptive Control Systems		2	3	2
Electrical Engineering: Plasma Physics		2	2	2
Electrical Engineering: Solid State and Semiconductors		4	2	2
Language and Area Studies	4	5		
Political Science: Political Behavior			3	3
Wayne State University	3	3	14	15
Biology			3	3
Economics		3	2	3
Experimental Psychology			4	2
History			2	2
Physics			2	2
Special Education and Vocational Rehabilitation	3		1	3
MINNESOTA	17	28	19	19
University of Minnesota	17	28	19	19
Applied Mathematics		5	3	2
Asian Studies			2	4
Business Administration	5			
College Teaching of Social Sciences	5	5	4	2
Economics: Industrial Organization		6	4	
Energy Conversion	3	3		
German		6	4	2
High Energy Physics				3
Psychology of Language		3		
Soils: Microclimatology			2	2
Transport and Transfer Processes	4			4
MISSISSIPPI	23	17	13	12
Mississippi State University	12	4	6	5
Agronomy	4	4	2	
Area Studies: History and Sociology	4		2	
Entomology and Zoology	4		2	2
Sociology and Rural Life				3

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[1] Cooperative program with the University of Wisconsin and the University of Minnesota.

Table 17.—Number of graduate fellowships awarded under title IV in fiscal years 1959, 1960, 1961, and 1962 for academic years 1959–60, 1961–61, 1961–62, and 1962–63, respectively, by State, institution, and program title—Continued

Program, by State and institution	Number of fellowships, by academic year			
	1959–60	1960–61	1961–62	1962–63
1	2	3	4	5
University of Mississippi	11	13	7	7
Chemistry	3	3	2	3
English	4	5	3	2
History	4	5	2	2
MISSOURI	28	46	49	45
St. Louis University	5	10	7	5
Experimental Psychology			2	3
Medieval and Renaissance Literature		5	3	
Spanish and Latin American Studies	5	5	2	2
University of Missouri	10	19	25	23
Atmospheric Studies			2	2
Botany: Spore and Pollen Analysis				2
Comparative Vertebrate Physiology	8		3	2
Educational Psychology		5	2	2
Energy Conversion			4	
Geology: X-ray Crystallography		2	2	1
Mathematical Probability and Statistics			2	
Quantitative Economic Analysis of Natural Resources		4	2	
Radiochemistry			3	2
Recent U.S. History			3	4
Romance Languages				4
Social Psychology		6		
Sociology and Anthropology				4
Theoretical Physics	2	2	2	
University of Missouri, School of Mines and Metallurgy		4	5	5
Engineering Biochemistry			3	3
Engineering Physics		4	2	2
Washington University	13	13	12	12
English	5	5	3	1
Mathematics	4	4	2	2
Philosophy			4	3
Regional and Urban Economics			3	3
Sociology and Anthropology: Organization and Industrial Behavior	4	4		
Urban History				3
MONTANA	11	13	9	14
Montana State College	3	9	7	9
Entomology			2	2
Genetics		3	1	2
Inorganic and Analytical Chemistry		3	2	
Mathematics	3	3	2	2
Structural Chemistry				3
Montana State University	8	4	2	5
Geology	4	2	2	1
Microbiology and Public Health	1	2		
Zoology	3			4

Program, by State and institution	Number of fellowships by academic year			
	1959–60	1960–61	1961–62	1962–63
1	2	3	4	5
NEBRASKA	9	16	15	16
University of Nebraska	9	16	15	16
Animal Husbandry				4
Comparative Political Processes	5	4	1	
Economics		5		
English			5	6
Entomology	4	2	2	
History			4	4
Industrial Management		2		
Mathematics			3	2
Physics		3		
NEVADA				3
University of Nevada				3
Geology and Related Earth Sciences				3
NEW HAMPSHIRE		3	6	9
Dartmouth College				4
Mathematics				4
University of New Hampshire		3	6	5
Botany			2	2
Chemistry			2	
Zoology		3	2	3
NEW JERSEY	12	24	24	28
Newark College of Engineering			5	3
Chemical Engineering			5	3
Princeton University				7
Linguistics				5
Mechanical Engineering: Solid State and Materials				2
Rutgers—The State University	9	22	17	18
Comparative Literature				4
English		5	3	2
French, Spanish, Italian		5	3	2
German Language and Literature		4	3	2
Guidance and Personnel				3
Mathematics	4	4	2	2
Political Science			3	3
Training of Liberal Arts Teachers	5	4	3	
Stevens Institute of Technology	3	2	2	
Mechanical Engineering	1	2		
Physical and Organic Chemistry	2		2	
NEW MEXICO	13	13	11	8
New Mexico Highlands University				3
Biophysical Chemistry				3

New Mexico State University	6	8	6	3
Mathematics		5	3	
Solid State and Low Temperature Physics	6	3	3	3
University of New Mexico	7	5	5	2
Ibero-American Area Studies	7	5	5	2
NEW YORK	53	88	113	123
Alfred University	3	3	2	1
Ceramics Engineering	3	3	2	1
City University of New York				14
Chemistry				3
Economics				3
English and Comparative Literature				5
Psychology				3
Clarkson College of Technology			3	1
Chemical Engineering and Chemistry			3	1
Columbia University	3	11	10	9
Business			4	2
Civil Engineering: Dynamic Structural Design		4	6	
Electrical Engineering: Digital Systems				4
Near and Middle East Studies	3	7		
Political Science				3
Teachers College, Columbia University		3	6	5
Comparative and International Education			3	2
Educational Psychology		3	3	3
Cornell University	11	10	19	21
Comparative Literature	6	3	1	3
Econometric and Other Quantitative Techniques			6	
German			3	3
History and Philosophy of Science	1	4	2	3
Home Economics Education	4	3		
International Relations and Comparative Government			3	2
Latin American Studies			4	3
Physiology of Disease				2
Romance Language and Literature				3
Sociology: Demography				2
Fordham University		4	7	3
Classics: Latin-Medieval-Humanistic Philology		4	4	
Theoretical Physics			3	3
New School for Social Research	4	3	3	
Econometrics		3	3	
Philosophy and Psychology	4			
New York University	3	15	11	7
Comparative Public Administration				4
Hebrew Culture and Civilization	3	5	4	
Russian Language and Literature		6		
Southeast Asian Anthropology		4	4	
Structural Mechanics			3	3
Polytechnic Institute of Brooklyn	8	5	7	11
Automatic Computer Methods	1			
Chemical Physics			3	5
Electrical Engineering	7			6
Mathematics		5		
Theoretical Physics			4	
Rensselaer Polytechnic Institute	5	11	11	11
Applied Mathematics and Analysis		2	2	2
Chemical Engineering	3	3		
Electrical Engineering		3		
Fiber Science and Engineering			4	3
Materials Engineering				2
Mechanical Engineering		2		
Nuclear Engineering and Science				2
Physics	2	1	2	2
Soil Mechanics and Foundation Engineering			3	
State University of New York at Buffalo	3	5	4	9
English and American Literature	3	5	4	1
French and German Languages and Literature				8
Syracuse University		3	12	14
City Planning			3	
Comparative Education				3
Economics				3
Educational Media				3
Mechanical Engineering		3	4	
Political Science			5	5
Union Theological Seminary	5			
Theology	5			
University of Rochester	8	13	16	10
Chemical Engineering			3	2
Church Music		5	3	
Economics	3	4		
English	5	4	3	2
Philosophy			4	4
Russian History			3	2
Yeshiva University		2	2	7
Experimental and Theoretical Physics				3
Mathematical Analysis, Algebra, and Geometry		2	2	2
Special Education				2
NORTH CAROLINA	42	61	52	52
Duke University	16	18	19	18
Anatomical, Physiological, and Behavioral Interrelationships	3	3	3	2
Biophysics and Radiation Biology			2	
Economic Development		4	3	3
English	5	4	4	2
History of the Commonwealth	4	3	2	3
Physical and Inorganic Chemistry			2	
Political Science	4			
Religion: Church History and Christian Ethics		4	3	
Romance Languages				4
Sociology and Anthropology				4
North Carolina State College	13	16	11	15
Agricultural Adjustment and Public Policy	6	6	2	
Animal Breeding				2
Animal Ecology	3	2		3
Applied Mathematics			3	1
Bacteriology	1	2	2	1
Civil Engineering		3	2	2
Genetics	3			4
Mechanical Engineering		3	2	
Plasma and Space Physics				2
University of North Carolina	13	27	22	19
Anthropology: Structural Linguistics	3	3		
Business Administration	1	3	2	2
City and Regional Planning			5	
Classics	5	3		

Table 17.—Number of graduate fellowships awarded under title IV in fiscal years 1959, 1960, 1961, and 1962 for academic years 1959–60, 1960–61, 1961–62, and 1962–63, respectively, by State, institution, and program title—Continued

Program, by State and institution	Number of fellowships, by academic year			
	1959–60	1960–61	1961–62	1962–63
1	2	3	4	5
University of North Carolina—Continued				
International Relations and Comparative Government		3	3	3
Mathematical Statistics		3	2	
Pharmacy and Pharmaceutical Chemistry		2		
Philosophy			4	3
Plant Biochemistry				4
Russian History		6	3	3
Soviet Economics		2	3	2
Theory and Practice of Digital Computers	4	2		2
NORTH DAKOTA	8	12	7	18
North Dakota State University	4	3	2	10
Agricultural Chemistry				3
Chemistry: Polymer and Analytical Instrumentation				4
Plant Science	4	3	2	3
University of North Dakota	4	9	5	8
Anatomy	4	2	1	2
Biochemistry		2		2
Geology		3	2	2
Psychology: Counseling and Guidance		2	2	2
OHIO	14	42	45	55
Bowling Green State University				4
English				4
Case Institute of Technology		8	6	17
Chemistry Molecular Structure and Spectroscopy				3
Digital Systems Engineering				2
Heat Transfer, Fluid and Plasma Dynamics			6	2
Mathematics				6
Systems Science and Engineering		8		2
Thermo-mechanics				2
Kent State University			7	6
Education			4	4
English			3	2
Ohio State University		11	9	4
French and Spanish		4		
International Relations			3	
Music		7	3	
Quantitative Economics			3	
Radiation Chemistry				4
Ohio State University and Miami University (Cooperative Program)			7	6
Educational Administration			3	3
English			4	3
Ohio University	10	11	10	9
Chemistry	5	4	2	2
Elementary Education		4	2	2
Elementary School Guidance				3
Physics			4	2
Speech	5	3	2	
University of Cincinnati		4	3	3
Dynamical Astronomy		4		
History				3
U.S. Foreign Policy			3	
University of Toledo				4
Science Education				4
Western Reserve University	4	8	3	2
English	4	4		2
Romance Languages		4	3	
OKLAHOMA	27	33	35	33
Oklahoma State University	15	16	17	17
Bacteriology		1	2	2
Chemistry			2	2
College Science Teaching	5	5	2	2
Economics	2			
Educational Psychology		2	2	2
Electrical Engineering: Solid State Devices and Systems Synthesis				3
Engineering: Heat Transfer and Thermodynamics			5	3
Physics	4	3	2	1
Soil Science	4	2		
Statistics		3	2	2
University of Oklahoma	12	17	18	16
Chemical Engineering		1		
Engineering Sciences	3	4		
English and American Literature	3	4	3	3
French and Spanish			6	4
History of Science			2	3
International Studies	4	3	3	3
Physics				3
Speech		3	2	
Zoology	2	2	2	
OREGON	26	43	41	36
Linfield College and Oregon State University (Cooperative Program)		5	4	
Physics		5	4	

Oregon State University	8	8	11	14
Applied Mathematics			3	2
Bacteriology		2		
Botany: Physiology of Parasitism	3	2	2	
Chemical Engineering		2	2	
Entomology			2	2
Mathematics and Electrical Engineering: Computer Science	1	2	2	
Physics	2			2
Physics (Gaseous Electronic)	2			
Sanitary Engineering				2
Sedimentology				3
Solid State Chemistry				3
University of Oregon	18	30	26	22
Anthropology			4	3
English		5	3	3
Economics				4
General Elementary Education		4	2	
Geology	2	3	2	
History	4	5	2	2
Mathematics				4
Medieval Linguistics and Literature			4	
Physics				2
Political Science	4	4	2	
Romance Languages	4	5	4	2
Sociology	4	4	3	2
PENNSYLVANIA	54	60	58	58
Bryn Mawr College	3			
Russian	3			
Carnegie Institute of Technology	5	16	8	16
Civil Engineering		6	3	2
Elementary Particle Physics				2
Industrial Administration: Management Science			5	4
Nuclear Mechanical Engineering				4
Science of Materials	5	10		
Systems and Communications Sciences				4
Dropsie College	3	3		
Comparative Religions	3	3		
Lehigh University			5	8
Chemical Engineering: Cryogenic Engineering			2	2
English				3
Mathematics			3	3
Pennsylvania State University	9	5	9	7
Biophysics			4	2
Philosophy	4	2	2	2
Political Science and Government	5	3	3	3
Temple University		6	4	2
English		6	4	2
University of Pennsylvania	10	20	15	9
Economics		9	5	
Engineering Mechanics	5	6		
English	5	5		2
Near Eastern Civilization			5	3
Sociology: Social Organization			5	4
University of Pittsburgh	4	10	17	16
Anthropology		5	3	3
Educational Psychology	4	3		2
Modern Western European History			4	1
University of Pittsburgh—Continued				
Musicology			3	
Philosophy				2
Public and International Affairs			4	4
Romance Languages				4
Sociology of the Professions			3	
Speech Pathology and Audiology		2		
RHODE ISLAND	10	27	31	27
Brown University	6	24	25	19
American History		5	3	
Applied Mathematics	5			
French			5	2
Geology			2	3
German Literature and Linguistics				4
Hispanic Literature			4	2
Mathematical Economics		4	3	2
Mathematics		5	3	2
Religious Studies	1	4	2	
Slavic Languages and Literature		6		
Sociology and Anthropology: Metropolitan Studies			3	4
University of Rhode Island	4	3	6	8
Biological Oceanography			4	3
Biological Sciences	4	3	2	3
Electrical Engineering				2
SOUTH CAROLINA	10	12	16	14
Clemson College	8	5	4	6
Chemistry	4	4	2	2
Entomology			2	2
Plant Pathology	4	1		2
University of South Carolina	2	7	12	8
History			2	
Inorganic Chemistry			2	2
Mathematics		4	3	2
Physics	2	3	3	2
Physiology			2	2
SOUTH DAKOTA	4	3	3	5
South Dakota State College	4	3	3	2
Agronomy	4	3	3	2
State University of South Dakota				3
Zoology				3
TENNESSEE	39	48	61	49
George Peabody College for Teachers	7	10	12	9
Comparative Education	3	2	2	2
Internship and Student Teaching		4	4	4
Music	4	4	3	
Teaching of History and Social Studies			3	3
University of Tennessee	11	16	21	15
Biochemistry			3	3
Economics			6	3
Engineering Science				3
English			5	4
Low Temperature Physics		2		2
Mathematics	3	4	2	
Nutrition and Foods		5	2	
Sociology	8	5	3	

Table 17.—Number of graduate fellowships awarded under title IV in fiscal years 1959, 1960, 1961, and 1962 for academic years 1959–60, 1960–61, 1961–62, and 1962–63, respectively, by State, institution, and program title—Continued

Program, by State and institution	Number of fellowships, by academic year			
	1959–60	1960–61	1961–62	1962–63
1	2	3	4	5
Vanderbilt University	21	22	28	25
Chemistry: Compounds with Physiological Actions	3		2	
Comparative Literature	8		3	4
Comparative Political Systems	5	2		3
Economic Development		5	1	2
French			5	2
German		5	2	1
Latin American Studies			5	3
Philosophy		5	3	3
Plant Taxonomy-Ecology		3	2	3
Spanish			5	2
Theoretical Physics	5	2		2
TEXAS	36	62	51	67
Agricultural and Mechanical College of Texas	12	15	9	13
Agriculture: Plant Cytogenetics				2
Animal Husbandry				2
Applied Mathematics	5			
Chemistry		5		
Industrial Education				3
Oceanography and Meteorology		4	2	3
Physics	3		3	1
Plant Pathology: Virology				2
Plant Physiology			2	
Soil-Plant-Water Relationships		2	2	
Structural Engineering	4	4		
Baylor University	2	8	5	2
Chemistry	2	4	2	2
Industrial and Experimental Psychology		4	3	
Rice University	5	13	8	12
Economics				3
English Literature	5	5	4	2
Geology, Geochemistry, and Geophysics		3	2	1
German				3
Southern History		5	2	3
Southern Methodist University		4		2
Economics		4		2
Texas Christian University			2	7
English				3
Physics			2	2
Psychology				2
Texas Technological College	3	3	3	4
English	3	3	3	3
Physical Biochemistry				1
University of Houston	4	3	2	4
Biophysical Science				3
Chemical Engineering	4	3	2	1

Program, by State and institution	Number of fellowships, by academic year			
	1959–60	1960–61	1961–62	1962–63
1	2	3	4	5
University of Texas	10	16	22	23
Astronomy		2	2	2
Botany: Molecular Aspects of Biological Sciences				4
Classical Languages			5	
Education	3			
German	3	5	4	
Latin American Studies			6	4
Linguistics		5	5	3
Nuclear Physics				2
Philosophy	4	4		
Science Education				4
Sociology: Human Ecology and Demography				4
UTAH	18	14	13	22
Brigham Young University				8
Chemistry				3
Educational Psychology				2
Physics				3
University of Utah	14	9	8	9
American Studies	3		2	
Chemical Engineering: Fluid Dynamics			3	3
Chemistry	5	3		
Electrical Engineering: Microwave Devices	3	3		2
English			3	2
Science of Materials	3	3		2
Utah State University	4	5	5	5
Botany			2	2
Civil Engineering		2	3	
Zoology	4	3		3
VERMONT	3	3	5	3
University of Vermont	3	3	5	3
Biochemistry	3	3		
Chemistry			3	3
Physiology and Biophysics			2	
VIRGINIA	28	26	33	36
University of Virginia	19	14	23	21
American Literature			3	2
Bibliography and Textual Criticism			3	
Economics of Underdeveloped Countries	3			
Experimental Psychology	5		3	3
Foreign Affairs	6	6	3	2
History: Critical Areas			5	3
Political Economy	3	3	3	2
Political Science: Public Affairs				4
Theoretical Nuclear Physics				3
Twentieth Century Literature	2	5	3	2

Virginia Polytechnic Institute	9	12	10	15
Aerospace Engineering	4			1
Agronomy		3		
Animal Husbandry				3
Chemical Engineering		3		3
Chemistry		3		
Civil Engineering			3	
Engineering Mechanics		3		4
Genetic Statistics			4	
Mathematics	5			4
Theoretical Physics			3	
WASHINGTON	28	34	27	21
University of Washington	20	29	22	11
Applied Mechanics			3	2
Area Studies		6		
Botany	2	2	1	2
Business Administration: Quantitative Methods			5	
Classics		4	3	
Education	1	2	1	1
Far East and Slavic Language and Literature	4			
Fluid Mechanics	2	2		
History of Science	1		2	
Language Teacher Training	4	3		3
Linguistics		5	3	2
Mechanical Engineering: Heat Transfer			2	
Music	2			
Non-Western Political Systems				
Philosophy		2	2	1
Radio Wave Propagation		3		
Russian History	1			
Washington State University	8	5	5	10
Agriculture: Soils			2	2
American Studies				3
Chemistry	5	3	3	
Educational Media				3
Mathematics	3	2		
Zoophysiology				2
WEST VIRGINIA	5	5	11	8
West Virginia University	5	5	11	8
Agricultural Biochemistry and Nutrition			2	
West Virginia University—Continued				
Agronomy and Genetics				3
Biochemistry				3
Chemistry	3	3		
History				2
Music			6	
Physics	2	2	3	
Psychology				
WISCONSIN	5	19	31	24
Marquette University			4	2
Philosophy			4	2
University of Wisconsin	5	19	27	23
Adult Education		5	2	2
Buddhist Studies			4	
Comparative Political Systems in Developing Societies			3	2
Counselor Education			4	2
Design of Educational Experiments			4	3
Economics of Agrarian Reform				4
Geography: Cartography			3	2
Hispanic Studies		7	4	
Modern French Literature				4
Public Administration	2	3		
Russian Area Studies	3	4		
Soil Organic Chemistry and Biochemistry			3	3
WYOMING	9	8	10	11
University of Wyoming	9	8	10	11
Chemistry	1	2	1	1
Counselor Education	4	4	3	3
Geology			3	2
Plant Science and Water Management				2
Zoology and Physiology	4	2	3	3
PUERTO RICO			2	
University of Puerto Rico			2	
Biochemistry and Nutrition			2	

Table 18.—Allotments, payments to States, and reported expenditures under title V(A), by State: Fiscal years 1961 and 1962

State or territory	Fiscal year 1961			Fiscal year 1962		
	Allotment	Payment [1]	Expenditures [2]	Allotment	Payment [3]	Expenditures [4]
1	2	3	4	5	6	7
Total	**$15,000,000**	**$14,921,008**	**$14,648,701**	**$15,000,000**	**$14,385,266**	**$14,738,429**
Alabama	303,604	303,500	302,509	302,659	302,439	302,439
Alaska	20,000	19,966	13,611	20,000	19,968	19,968
Arizona	115,390	115,352	115,327	117,701	117,630	115,084
Arkansas	163,939	163,924	163,924	159,401	159,317	159,317
California	1,190,844	1,188,671	1,182,105	1,245,611	1,243,437	1,230,891
Colorado	144,238	144,238	144,220	147,967	147,967	147,967
Connecticut	185,751	185,751	185,751	195,720	195,720	195,720
Delaware	36,939	36,696	34,768	36,319	36,004	35,992
District of Columbia	47,493	47,000	41,367	47,753	47,000	46,000
Florida	377,130	377,130	377,130	383,368	383,368	383,368
Georgia	359,540	359,495	359,495	356,802	356,400	356,400
Hawaii	59,102	58,843	58,822	57,169	56,876	56,876
Idaho	61,565	61,553	61,553	62,550	62,459	62,280
Illinois	790,144	785,331	724,749	776,489	771,252	764,909
Indiana	389,443	388,646	377,003	388,749	387,521	376,213
Iowa	232,540	229,167	194,700	228,676	140,196	227,090
Kansas	175,548	175,548	168,112	176,551	176,551	170,287
Kentucky	283,903	283,439	257,810	268,358	267,777	237,597
Louisiana	296,568	295,931	296,325	300,305	300,305	300,305
Maine	78,803	78,803	78,803	80,709	80,709	80,709
Maryland	255,407	254,807	254,807	258,942	258,345	258,345
Massachusetts	380,296	380,296	374,043	390,094	390,094	365,167
Michigan	680,734	679,185	679,185	669,213	667,075	667,075
Minnesota	288,476	283,536	283,536	291,562	285,884	285,884
Mississippi	213,191	213,174	192,301	210,516	210,443	210,241
Missouri	331,044	328,762	328,762	333,934	330,986	330,979
Montana	60,158	59,975	59,940	59,523	59,269	59,268
Nebraska	118,205	115,592	109,349	114,338	111,102	111,102
Nevada	23,571	23,500	15,510	22,195	22,000	20,715
New Hampshire	46,789	46,655	45,277	48,425	48,309	46,158
New Jersey	451,360	449,653	446,887	460,042	457,685	453,349
New Mexico	87,246	87,246	86,721	91,807	91,807	90,019
New York	1,229,542	1,229,542	1,228,395	1,225,770	1,225,770	1,225,176
North Carolina	422,160	419,035	389,678	419,688	419,495	419,495
North Dakota	58,399	58,060	58,060	57,842	57,460	57,460
Ohio	797,180	783,138	782,495	796,667	781,366	768,004
Oklahoma	192,083	191,663	190,345	192,357	191,900	185,830
Oregon	148,460	147,870	142,711	149,648	149,101	146,701
Pennsylvania	885,481	883,004	883,004	883,429	881,204	881,204
Rhode Island	65,435	65,383	55,803	64,567	64,567	64,268
South Carolina	242,039	242,018	242,018	234,729	234,595	234,595
South Dakota	60,510	60,510	60,510	60,196	60,196	60,195
Tennessee	312,399	312,289	312,289	309,721	309,606	309,606
Texas	850,653	849,906	843,877	832,985	416,492	832,985
Utah	85,136	85,136	85,136	86,090	86,082	85,580
Vermont	32,014	32,014	31,801	32,956	32,956	32,932
Virginia	346,875	345,910	339,053	338,306	337,882	335,446
Washington	236,410	232,410	227,688	239,437	239,077	231,867
West Virginia	183,640	183,433	183,433	170,162	170,044	170,044
Wisconsin	333,507	332,967	332,352	330,908	329,741	329,082
Wyoming	28,848	28,692	[5] 28,692	29,257	(6)	(7)
Canal Zone	20,000	(6)	(6)	20,000	(6)	(6)
Guam	20,000	20,000	20,000	20,000	20,000	20,000
Puerto Rico	180,268	180,268	180,268	181,837	181,837	181,837
Virgin Islands	20,000	16,395	16,691	20,000	10,000	18,408

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[1] Net Federal payments as of June 30, 1961. In some instances, payments shown in column 3 include prior year's unexpended balances in the State that were applied against the 1961 Federal allotment.

[2] Expenditures reported by States shown are subject to adjustment, and in some instances include June 30, 1960, State Treasury balances from Federal funds allotted to the State in fiscal year 1960.

[3] Net Federal payments as of June 30, 1962. In some instances, payments shown in column 6 include prior year's unexpended balances in the State that were applied against the 1962 Federal allotment.

[4] Expenditures shown are subject to adjustment, and in some instances include June 30, 1961, State Treasury balances from Federal funds allotted to the State in fiscal year 1961.

[5] Estimated amount, expenditure data not available.

[6] Did not participate.

Table 19.—Number of public secondary school guidance supervisors and counseling personnel meeting qualifications as defined in the State plan for title V (A), by State: Fiscal year 1961

State or territory	GUIDANCE SUPERVISORS						COUNSELING PERSONNEL					
	All local programs			Local programs approved under title V			All local programs			Local programs approved under title V		
	Total [1]	Part-time [1]	Full-time [1]	Total	Part-time	Full-time	Total [1]	Part-time [1]	Full-time [1]	Total	Part-time	Full-time
1	2	3	4	5	6	7	8	9	10	11	12	13
Total	**3,150**	**1,773**	**1,377**	**2,080**	**1,271**	**809**	**31,520**	**20,014**	**11,506**	**24,357**	**14,615**	**9,742**
Alabama	18	6	12	15	6	[illegible]	396	323	73	195	133	62
Alaska	2	2	-----	2	2	-----	40	29	11	28	20	8
Arizona	24	20	[illegible]	14	12	2	248	149	99	.105	39	66
Arkansas	-----	-----	-----	-----	-----	-----	151	49	102	151	49	102
California	955	438	517	299	237	62	3,312	2,836	476	1,793	1,413	380
Colorado	16	14	2	14	13	1	352	204	148	252	125	127
Connecticut	19	4	15	19	4	15	399	161	238	399	161	238
Delaware	5	2	3	-----	-----	-----	89	41	48	18	8	10
District of Columbia	-----	-----	-----	-----	-----	-----	60	3	57	9	-----	9
Florida	24	-----	24	23	-----	23	854	547	307	622	382	240
Georgia	85	77	8	85	77	8	732	531	201	700	508	192
Hawaii	17	13	4	17	13	4	116	47	69	116	47	69
Idaho	23	23	-----	19	19	-----	114	74	40	73	38	35
Illinois	175	86	89	159	78	81	1,245	819	426	1,132	745	387
Indiana	155	128	27	113	79	34	518	467	51	254	219	35
Iowa	35	-----	35	35	-----	35	426	253	173	359	243	116
Kansas	31	31	-----	29	29	-----	231	140	91	223	132	91
Kentucky	5	5	-----	5	5	-----	356	242	114	356	242	114
Louisiana	42	31	11	30	25	5	441	290	151	285	234	51
Maine	30	4	26	19	2	17	98	46	52	58	23	35
Maryland	12	2	10	12	2	10	536	107	429	536	107	429
Massachusetts	110	63	47	89	51	38	1,017	497	520	947	474	473
Michigan	184	155	29	115	90	25	1,432	751	681	1,110	520	590
Minnesota	11	9	2	10	9	1	555	227	328	338	115	223
Mississippi	10	3	7	9	2	7	129	81	48	101	65	36
Missouri	10	-----	10	10	-----	10	492	245	247	399	224	175
Montana	5	5	-----	2	2	-----	132	115	17	55	49	6
Nebraska	13	11	2	11	9	2	242	232	10	194	189	5
Nevada	4	3	1	4	3	1	49	22	27	40	18	22
New Hampshire	3	-----	3	-----	-----	-----	108	62	46	32	19	13
New Jersey	146	15	131	116	7	109	1,093	682	411	933	576	357
New Mexico	2	-----	2	2	-----	2	219	80	139	214	77	137
New York	135	59	76	135	59	76	3,513	1,750	1,763	3,484	1,735	1,749
North Carolina	39	-----	39	39	-----	39	566	451	115	97	-----	97
North Dakota	4	3	1	3	3	-----	47	28	19	29	16	13
Ohio	105	89	16	42	40	2	1,688	1,140	548	860	535	325
Oklahoma	7	3	4	6	2	4	339	249	90	337	248	89
Oregon	8	-----	8	8	-----	8	485	455	30	383	359	24
Pennsylvania	178	162	16	178	162	16	1,828	938	890	1,730	854	876
Rhode Island	44	-----	44	44	-----	44	257	212	45	243	198	45
South Carolina	4	-----	4	4	-----	4	1,126	1,087	39	1,025	987	38
South Dakota	2	2	-----	-----	-----	-----	69	57	12	15	12	3
Tennessee	15	12	3	14	12	2	529	493	36	512	481	31
Texas	162	103	59	107	62	45	1,292	274	1,018	801	126	675
Utah	60	22	38	44	19	25	216	71	145	188	65	123
Vermont	14	-----	14	14	-----	14	145	138	7	103	98	5
Virginia	8	-----	8	8	-----	8	857	638	219	803	584	219
Washington	83	73	10	58	48	10	1,064	634	430	630	288	342
West Virginia	15	-----	15	10	-----	10	201	141	60	176	130	46
Wisconsin	96	95	1	89	88	1	929	904	25	727	703	24
Guam	-----	-----	-----	-----	-----	-----	8	2	6	8	2	6
Puerto Rico	-----	-----	-----	-----	-----	-----	179	-----	179	179	-----	179

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[1] Includes carefully prepared estimates where actual figures were not available.

Table 20.—Number of public secondary school guidance supervisors and counseling personnel meeting qualifications as defined in the State plan for title V (A), by State: Fiscal year 1962

State or territory	GUIDANCE SUPERVISORS						COUNSELING PERSONNEL					
	All local programs			Local programs approved under title V			All local programs			Local programs approved under title V		
	Total[1]	Part-time[1]	Full-time[1]	Total	Part-time	Full-time	Total[1]	Part-time[1]	Full-time[1]	Total	Part-time	Full-time
1	2	3	4	5	6	7	8	9	10	11	12	13
Total	**3,932**	**1,972**	**1,960**	**2,434**	**1,483**	**951**	**33,146**	**19,904**	**13,242**	**26,024**	**14,592**	**11,432**
Alabama	17	1	16	13	1	12	394	292	102	310	210	100
Alaska	4	----	4	4	----	4	38	23	15	31	16	15
Arizona	23	19	4	16	14	2	230	129	101	124	44	80
Arkansas	----	----	----	----	----	----	180	54	126	177	51	126
California	1,516	527	989	480	303	177	4,007	3,359	648	2,246	1,729	517
Colorado	15	12	3	15	14	1	435	236	199	358	176	182
Connecticut	25	17	8	22	14	8	451	159	292	387	135	252
Delaware	14	4	10	8	----	8	75	29	46	24	6	18
District of Columbia	----	----	----	----	----	----	60	----	60	9	----	9
Florida	24	----	24	24	----	24	847	463	384	838	457	381
Georgia	13	4	9	13	4	9	567	386	181	480	308	172
Hawaii	16	15	1	13	12	1	119	21	98	101	3	98
Idaho	18	4	14	17	4	13	140	100	40	104	67	37
Illinois	178	81	97	163	74	89	1,217	734	483	1,105	667	438
Indiana	205	169	36	146	110	36	699	626	73	361	300	61
Iowa	37	----	37	26	----	26	722	559	163	386	251	135
Kansas	38	38	----	36	36	----	302	169	133	281	155	126
Kentucky	5	5	----	5	5	----	346	193	153	346	193	153
Louisiana	42	35	7	12	8	4	443	269	174	266	164	102
Maine	26	1	25	17	1	16	112	47	65	72	25	47
Maryland	12	1	11	12	1	11	565	76	489	565	76	489
Massachusetts	116	90	26	104	78	26	1,038	362	676	750	264	486
Michigan	177	142	35	131	104	27	1,502	648	854	1,416	594	822
Minnesota	22	1	21	17	1	16	606	235	371	374	99	275
Mississippi	19	3	16	19	3	16	141	83	58	141	83	58
Missouri	7	----	7	7	----	----	495	245	250	442	229	213
Montana	5	5	----	3	3		134	108	26	60	44	16
Nebraska	12	10	2	10	8	2	180	136	44	120	81	39
Nevada	3	2	1	3	2	1	65	31	34	59	25	34
New Hampshire	3	----	3	----	----	----	118	53	65	36	14	22
New Jersey	244	20	224	192	15	177	1,109	580	529	890	416	474
New Mexico	1	----	1	1	----	1	173	62	111	152	50	102
New York	211	169	42	209	167	42	3,708	1,775	1,933	3,629	1,735	1,894
North Carolina	39	----	39	36	----	36	478	273	205	158	----	158
North Dakota	3	3	----	3	3	----	44	19	25	37	17	20
Ohio	135	118	17	62	56	6	1,630	916	714	1,086	597	489
Oklahoma	6	2	4	6	2	4	366	242	124	364	242	122
Oregon	8	2	6	7	2	5	718	655	63	331	285	46
Pennsylvania	307	295	12	295	283	12	1,862	929	933	1,695	823	872
Rhode Island	40	----	40	40	----	40	228	174	54	213	159	54
South Carolina	4	----	4	4	----	4	1,200	1,149	51	1,104	1,056	48
South Dakota	2	1	1	----	----	----	106	80	26	18	15	3
Tennessee	13	2	11	11	----	11	598	490	108	580	474	106
Texas	107	35	72	24	22	2	940	183	757	582	148	434
Utah	40	17	23	31	13	18	278	93	185	206	77	129
Vermont	18	----	18	17	----	17	148	142	6	87	82	5
Virginia	8	----	8	8	----	8	907	635	272	895	623	272
Washington	36	20	16	36	20	16	963	565	398	751	371	380
West Virginia	16	----	16	16	----	16	258	178	80	222	162	60
Wisconsin	102	102	----	100	100	----	1,009	937	72	860	792	68
Guam	----	----	----	----	----	----	9	2	7	9	2	7
Puerto Rico	----	----	----	----	----	----	186	----	186	186	----	186

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[1] Includes carefully prepared estimates where actual figures were not available.

Table 21.—Number of public secondary school students tested at least once, and number of tests administered under title V(A), by type and grade, by total, and by NDEA: Fiscal year 1961

Grade	Number of students in secondary schools tested at least once	Number of tests administered by type of test									
		Total		Scholastic aptitude or intelligence		Multifactor aptitude (3 or more factors)		Achievement battery		Single-subject achievement	
		Total[1]	NDEA	Total[1]	NDEA	Total[1]	NDEA	Total[1]	NDEA	Total[1]	NDEA
1	2	3	4	5	6	7	8	9	10	11	12
Total	**9,249,176**	**18,183,984**	**6,436,277**	**4,856,970**	**2,138,205**	**1,959,363**	**900,439**	**4,924,917**	**1,950,869**	**6,442,734**	**1,446,764**
7	1,517,730	2,866,574	1,207,375	986,439	508,430	75,558	22,150	920,855	335,082	883,722	341,713
8	1,706,246	3,474,617	1,344,905	857,968	362,455	389,938	208,260	1,115,941	421,071	1,110,770	353,119
9	2,101,851	4,402,835	1,847,152	1,188,068	584,642	673,329	392,742	1,155,773	525,925	1,385,665	343,843
10	1,484,618	2,857,159	861,991	780,108	302,629	305,481	154,968	647,316	241,933	1,124,254	162,461
11	1,391,524	2,814,674	861,348	706,980	285,007	300,297	86,803	655,057	293,889	1,152,340	195,649
12	1,047,207	1,768,125	313,506	337,407	95,042	214,760	35,516	429,975	132,969	785,983	49,979

[1] All totals include some estimates by States where complete data are not available.

Table 22.—Number of public secondary school students tested at least once, and number of tests administered under title V(A), by type and grade, by total, and by NDEA: Fiscal year 1962

Grade	Number of students in secondary schools tested at least once	Number of tests administered by type of test									
		Total		Scholastic aptitude or intelligence		Multifactor aptitude (3 or more factors)		Achievement battery		Single-subject achievement	
		Total[1]	NDEA	Total[1]	NDEA	Total[1]	NDEA	Total[1]	NDEA	Total[1]	NDEA
1	2	3	4	5	6	7	8	9	10	11	12
Total	**9,713,214**	**19,813,327**	**6,980,413**	**5,432,900**	**2,447,880**	**2,279,770**	**1,018,902**	**5,410,827**	**2,074,138**	**6,689,830**	**1,439,493**
7	1,508,788	3,019,305	1,226,072	1,049,924	560,108	84,717	24,196	954,644	319,564	930,020	322,204
8	1,717,886	3,758,834	1,480,621	896,909	398,543	491,475	267,702	1,190,960	442,899	1,179,490	371,477
9	2,404,057	5,078,684	2,211,924	1,378,047	727,522	853,914	463,986	1,332,268	600,797	1,514,455	419,619
10	1,619,791	3,159,302	908,002	846,823	314,672	362,142	161,460	732,296	281,833	1,218,041	150,037
11	1,466,356	2,973,385	857,689	831,107	349,446	293,447	67,898	728,625	313,890	1,120,206	126,455
12	996,336	1,823,817	296,105	430,090	97,589	194,075	33,660	472,034	115,155	727,618	49,701

[1] All totals include some estimates by States where complete data are not available.

Table 23.—Number and type of tests given to public and nonpublic secondary school students under title V(A), by State: Fiscal year 1961

State or Territory	Total		Scholastic aptitude or intelligence		Multifactor aptitude (3 or more factors)		Achievement battery		Single subject achievement	
	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic
1	2	3	4	5	6	7	8	9	10	11
Total	**6,436,277**	**611,147**	**2,138,205**	**161,741**	**900,439**	**29,384**	**1,950,869**	**98,248**	**1,446,764**	**321,774**
Alabama	156.915	386	67.204	193			89.711	193		
Alaska	5.906	55	1.979	27	1.029		2.898	28		
Arizona	65.666	200	13.909	200	9.938		19.574		22.245	
Arkansas	16.723	43	7.965	25			8.758	18		
California	73.177	5.925	22.078	4.058	17.266	1.867	27.872		5.961	
Colorado	140.609	5.408	43.001	2.142	12.636		84.972	3.266		
Connecticut	12.913	5.211	4.142	826	2.735	152	5.398		638	4.233
Delaware	31.905	816	10.064	336	3.250		7.071	480	11.520	
District of Columbia	21.132	71	11.534		7.691	71	1.907			
Florida	222.090	2.306	104.219	1.153	6.688		98.579	1.153	12.604	
Georgia	438.501	106	149.066	67	15.857		142.779	39	130.799	
Hawaii	60.498	923	9.247	321			10.919		40.332	602
Idaho	14.342	8			7.797	8	6.545			
Illinois	187.284	11.790	27.824	4.966	62.264	2.791	46.072	4.033	51.124	
Indiana	307.616	1.630	111.896	337	41.557	309	68.177	984	85.986	
Iowa	93.731	11.689	24.988	5.509	65.200	119	3.543	6.061		
Kansas	54.438	2.117	20.141	620	34.297	1.497				
Kentucky	257.016	2.237	93.589	1.143	26.212	599	100.934	495	36.281	
Louisiana	125.270	30.328	41.903	10.642	16.761	2.410	64.177	15.583	2.429	1.693
Maine	47.006		13.652		3.420		6.138		23.796	
Maryland	105.644	1.980	53.451	1.081			52.193	899		
Massachusetts	146.626	26.186	50.236	1.963	29.605	7.127	48.284	16.739	18.501	357
Michigan	246.360	4.933	167.676	3.267	78.684	1.666				
Minnesota	91.371	9.963	42.798	1.760	24.739	4.515	23.834	3.688		
Mississippi	96.378	79	7.986	28	28.086	23	60.306	28		
Missouri	179.825	8.003	80.883	4.405	60.962	519	37.980	3.079		
Montana	4.370	353			4.370	353				
Nebraska	35.546	5.060	16.827	1.914	775	25	17.944	3.121		
Nevada	9.645	101	2.509	101	1.772		4.957		407	
New Hampshire	14.968	409	5.943	257	1.541		1.541	45	5.943	107
New Jersey	64.000	4.833		2.855	64.000	1.978				
New Mexico	77.655	524	23.461	126	4.709		41.805	323	7.680	75
New York	839.663	393.460	153.014	82.971	13.942		27.938		644.769	310.489
North Carolina	182.339	406	62.122	200	10.392		77.144	206	32.681	
North Dakota	38.716	688	12.998	207	3.056	50	19.129	431	3.533	
Ohio	158.398	44.143	39.485	17.905	39.880		73.491	26.238	5.542	
Oklahoma	54.900	1.228	12.817	687	12.767		25.849	541	3.467	
Oregon	2.890	1.315	1.146	275			1.744	1.040		
Pennsylvania	150.560	6.325	74.580	3.059	1.400	1.398	74.580	1.868		
Rhode Island	5.154	2.122	880		575		3.283	2.122	416	
South Carolina	244.935	66	71.225	50	14.345		94.977	16	64.388	
South Dakota	33.745	3.257					33.745	3.257		
Tennessee	123.372	274	61.686	150			61.686	124		
Texas	219.441	1.266	71.603	310	49.261	358	98.577	598		
Utah	40.178		14.906		10.905		14.367			
Vermont	12.782	4.838	3.026	1.618	2.842	514	3.187	645	3.727	2.061
Virginia	244.061	1.538	88.414	410	67.312	897	88.335	231		
Washington	87.544	329	18.450	191	8.228	138	38.507		22.359	
West Virginia	100.034	505	40.077	326	6.573		45.409	179	7.975	
Wisconsin	274.910	1.324	77.229	957	23.267		80.372	367	94.042	
Wyoming [1]		130						130		
Guam	13.640		2.346		1.659		2.646		6.989	
Puerto Rico	201.260	2.103	100.630	2.103					100.630	
Virgin Islands	2.629	2.157	1.400		194		1.035			2.157

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[1] No report received. Nonpublic school testing arranged for by U.S. Office of Education.

Table 24.—Number and type of tests given to public and nonpublic secondary school students under title V(A) by State: Fiscal year 1962

State or territory	Total		Scholastic aptitude or intelligence		Multifactor aptitude (3 or more factors)		Achievement battery		Single subject achievement	
	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic
1	2	3	4	5	6	7	8	9	10	11
Total	**6,980,413**	**650,583**	**2,447,880**	**178,577**	**1,018,902**	**26,136**	**2,074,138**	**100,992**	**1,439,493**	**344,878**
Alabama	200.644	339	100.322	139			100.322	200		
Alaska	4.721	76	2.072	38			2.649	38		
Arizona	66.185	375	17.425	355	12.858		21.785	20	14.117	
Arkansas	16.340	288	8.254	144			8.086	144		
California	148.559	6.271	148.559	3.713		2.558				
Colorado	63.202		18.890		9.154		35.158			
Connecticut	30.513	3.434	5.306	575	6.045		9.843	1.999	9.319	860
Delaware	24.088	621	11.009	372	1.117	105	10.784	144	1.178	
District of Columbia	15.025	299	7.659	70	7.366	167		62		
Florida	239.638	2.328	115.495	1.164	7.022		103.886	1.164	13.235	
Georgia	350.282	955	121.493	289	10.134	217	137.782	449	80.873	
Hawaii	60.686	635	9.823	185			10.260	144	40.603	306
Idaho	15.797	158			9.773	101	6.024	57		
Illinois	192.614	13.589	28.380	6.721	64.509	1.824	47.494	5.044	52.231	
Indiana	329.339	2.337	119.797	193	46.672	392	72.246	1.752	90.624	
Iowa	81.893	5.506	21.175	4.119	57.466	77	3.252	1.310		
Kansas	60.609	2.721	22.106	882	38.503	1.839				
Kentucky	283.495	2.968	99.172	1.374	32.176	1.012	98.395	582	53.752	
Louisiana	112.496	19.379	40.437	7.385	17.069	2.365	54.115	8.571	875	1.058
Maine	83.138		20.259		6.779		15.852		40.248	
Maryland	105.611	1.903	53.667	1.083			51.944	820		
Massachusetts	151.437	25.724	45.272	3.324	29.834		50.747	22.400	25.584	
Michigan	288.182	6.321	190.768	3.835	97.414	2.486				
Minnesota	98.378	11.533	34.280	2.040	38.691	5.305	25.407	4.188		
Mississippi	106.953	194	11.812	66	29.648	29	54.417	99	11.076	
Missouri	190.741	9.606	79.466	5.072	61.913	380	49.362	4.154		
Montana	8.506	486			8.506	486				
Nebraska	46.330	7.108	24.248	3.060	1.752	168	20.330	3.880		
Nevada	14.433		3.824		3.710		4.564		2.335	
New Hampshire	17.322	350	7.050	205	1.611	37	1.611		7.050	108
New Jersey	91.000	6.040		3.836	91.000	2.204				
New Mexico	68.163	2.429	26.702	1.653	1.520	73	36.198	703	3.743	
New York	879.241	435.070	113.223	94.309	12.925		7.833		745.260	340.761
North Carolina	236.795	606	92.263	275	11.123	331	97.042		36.367	
North Dakota	26.617	1.235	11.950	590			14.667	645		
Ohio	193.196	48.196	45.461	20.441	51.067		89.745	27.755	6.923	
Oklahoma	167.664	1.406	56.978	702	18.705		85.898	704	6.083	
Oregon	2.211	1.497	1.250	637		28	961	832		
Pennsylvania	154.496	6.262	77.073	2.233	350	2.114	77.073	1.915		
Rhode Island	13.679	5.172	240	14	161		13.278	5.057		101
South Carolina	294.900	306	80.781	29	21.517		101.469	277	91.133	
South Dakota	19.207	2.240					19.207	2.240		
Tennessee	152.636	336	76.318	162			76.318	174		
Texas	248.029	1.471	77.056	152	63.860	744	107.113	575		
Utah	36.287	26	12.576	13	12.991		10.720	13		
Vermont	17.356	3.494	3.884	1.124	2.676	269	3.553	417	7.243	1.684
Virginia	278.258	854	103.366	404	71.526	65	103.366	385		
Washington	125.922	1.450	30.632	579	23.693	453	47.304	418	24.293	
West Virginia	154.639	275	65.215	124	16.987		72.437	151		
Wisconsin	266.310	3.964	98.504	2.147	17.151	307	109.608	1.510	41.047	
Guam	15.173		2.460		1.779		2.993		7.941	
Puerto Rico	128.950	2.750	102.590	2.750					26.360	
Virgin Islands	2.527		1.338		149		1.040			

Table 25.—Enrollment and contract price for 1961 short-term counseling and guidance training institutes under title V(B), by State and institution: Fiscal year 1961

Institution, by State	Number of enrollees	Contract price [1]
Total	**2,564**	**[2] $3,009,019**
ALABAMA		
University of Alabama	35	51,359
ARIZONA		
University of Arizona	30	31,016
ARKANSAS		
University of Arkansas	35	35,616
CALIFORNIA		
Los Angeles State College of Applied Arts and Sciences	35	38,099
Sacramento State College	30	35,608
San Diego State College	35	35,718
San Francisco State College	40	47,388
San Jose State College	30	34,771
COLORADO		
Colorado State University	30	46,451
CONNECTICUT		
University of Connecticut	25	30,491
FLORIDA		
Florida State University	38	44,384
GEORGIA		
University of Georgia	50	50,745
HAWAII		
University of Hawaii	30	30,793
IDAHO		
University of Idaho	30	42,587
ILLINOIS		
Illinois State Normal University	30	45,069
Loyola University	60	66,246
INDIANA		
Ball State Teachers College	40	58,738
University of Notre Dame	30	31,070
IOWA		
State College of Iowa	24	34,588
State University of Iowa	36	47,860
KANSAS		
Kansas State College of Pittsburg	30	31,630
KENTUCKY		
University of Kentucky	31	43,806
LOUISIANA		
Northwestern State College of Louisiana	30	45,494
MAINE		
University of Maine	33	33,024
MARYLAND		
University of Maryland	31	34,914
MASSACHUSETTS		
Boston College	40	37,210
Clark University	30	35,510
Springfield College	30	36,944

See footnotes at end of table.

Table 25.—Enrollment and contract price for 1961 short-term counseling and guidance training institutes under title V(B), by State and institution: Fiscal year 1961—Continued

Institution, by State	Number of enrollees	Contract price [1]
MICHIGAN		
Central Michigan University	40	$44,519
Northern Michigan College	25	35,235
Western Michigan University	35	46,888
MINNESOTA		
University of Minnesota, Duluth Branch	30	31,080
MISSISSIPPI		
Mississippi College	30	30,725
MISSOURI		
University of Missouri	49	62,591
MONTANA		
Montana State University	25	43,648
NEBRASKA		
University of Nebraska	30	38,703
NEVADA		
University of Nevada	30	39,790
NEW JERSEY		
Rutgers, The State University	30	31,626
NEW MEXICO		
New Mexico State University	30	32,746
NEW YORK		
Colgate University	30	35,579
Fordham University	40	35,551
Queens College, The City University of New York	49	44,075
St. Bernardine of Siena College	30	35,264
Syracuse University	40	54,444
University of Buffalo	35	36,548
NORTH CAROLINA		
North Carolina College at Durham	48	46,463
North Carolina State College of Agriculture and Engineering	25	25,191
University of North Carolina at Chapel Hill	35	36,139
OHIO		
Kent State University	45	46,894
Miami University	45	57,506
Ohio University	39	35,028
University of Toledo	39	36,273
OKLAHOMA		
Oklahoma State University of Agriculture and Applied Science	32	45,615
OREGON		
Oregon State System of Higher Education	40	61,040
PENNSYLVANIA		
University of Pittsburgh	45	46,785
PUERTO RICO		
University of Puerto Rico	25	26,783
RHODE ISLAND		
University of Rhode Island	30	32,838
SOUTH CAROLINA		
South Carolina State College	40	34,068
University of South Carolina	24	24,820

Table 25.—Enrollment and contract price for 1961 short-term counseling and guidance training institutes under title V(B), by State and institution: Fiscal year 1961—Continued

Institution, by State	Number of enrollees	Contract price [1]
SOUTH DAKOTA		
State University of South Dakota	30	$38,806
TENNESSEE		
Tennessee Agricultural and Industrial State University	44	37,611
University of Tennessee	33	52,878
TEXAS		
Austin College	30	29,826
East Texas State College	34	32,083
Prairie View Agricultural and Mechanical College	30	27,908
Stephen F. Austin State College	30	32,488
University of Houston	35	34,730
UTAH		
Utah State University of Agriculture and Applied Science	30	31,371
VIRGINIA		
College of William and Mary	26	30,383
Hampton Institute	30	36,235
University of Virginia	30	32,075
Virginia State College	30	39,748
WASHINGTON		
Central Washington State College	30	45,158
WEST VIRGINIA		
Marshall University	25	36,190
WISCONSIN		
University of Wisconsin, Milwaukee Campus	30	40,586
WYOMING		
University of Wyoming	33	60,151

[1] Based on data available as of Nov. 1, 1962.

[2] Includes $153 paid to an institution as costs incurred during negotiation: contract was terminated.

Table 26.—Enrollment and contract price for 1962 short-term counseling and guidance training institutes under title V (B), by State and institution: Fiscal year 1962.

Institution, by State	Number of enrollees	Contract price [1]
Total	**1,947**	**$2,607,774**
ARIZONA		
University of Arizona	28	44,331
ARKANSAS		
University of Arkansas	25	27,541
CALIFORNIA		
Fresno State College	30	35,300
Los Angeles State College of Applied Arts and Sciences	32	36,745
Sacramento State College	28	33,128
San Diego State College	33	35,768
San Fernando Valley State College	30	37,004
COLORADO		
Colorado State University	29	45,936

See footnote at end of table.

Table 26.—Enrollment and contract price for 1962 short-term counseling and guidance training institutes under title V(B), by State and institution: Fiscal year 1962—Continued

Institution, by State	Number of enrollees	Contract price [1]
CONNECTICUT		
University of Connecticut	25	$31,348
DELAWARE		
University of Delaware	30	47,555
FLORIDA		
Florida State University	30	46,865
GEORGIA		
University of Georgia	30	35,436
HAWAII		
University of Hawaii	30	37,799
IDAHO		
Idaho State College	25	45,724
ILLINOIS		
Loyola University	31	39,686
University of Illinois	23	44,059
Western Illinois University	30	47,821
INDIANA		
Ball State Teachers College	30	47,171
Purdue University	30	49,860
IOWA		
State College of Iowa	25	36,629
State University of Iowa	27	45,353
KANSAS		
Kansas State College of Pittsburg	28	32,149
KENTUCKY		
University of Kentucky	30	41,181
MAINE		
University of Maine	30	37,011
MASSACHUSETTS		
Springfield College	30	35,329
MICHIGAN		
Michigan State University of Agriculture and Applied Science	31	37,868
Western Michigan University	35	51,146
MINNESOTA		
St. Cloud State College	26	24,329
University of Minnesota	31	43,700
MISSISSIPPI		
Mississippi College	30	32,019
MISSOURI		
University of Missouri	30	41,481
MONTANA		
Montana State University	25	48,823
NEBRASKA		
University of Nebraska	30	45,295
NEVADA		
University of Nevada	30	42,675

Table 26.—Enrollment and contract price for 1962 short-term counseling and guidance training institutes under title V (B), by State and institution: Fiscal year 1962—Continued

Table 26.—Enrollment and contract price for 1962 short-term counseling and guidance training institutes under title V (B), by State and institution: Fiscal year 1962—Continued

Institution, by State	Number of enrollees	Contract price [1]
NEW JERSEY		
Rutgers, The State University	30	$34, 815
NEW MEXICO		
New Mexico State University	30	33, 319
NEW YORK		
Colgate University	30	33, 595
Fordham University	30	27, 559
Syracuse University	30	46, 101
University of Buffalo	28	37, 476
University of Rochester	30	35, 818
NORTH CAROLINA		
North Carolina College at Durham	30	30, 715
North Carolina State College of Agriculture and Engineering	30	33, 100
OHIO		
Miami University	30	43, 375
The Ohio State University	30	48, 171
Ohio University	30	30, 811
University of Toledo (conducted in Wiesbaden, Germany)	27	25, 600
OKLAHOMA		
Oklahoma State University of Agriculture and Applied Science	32	48, 773
OREGON		
Oregon State System of Higher Education	40	60, 840
PENNSYLVANIA		
University of Pittsburgh	30	35, 299
PUERTO RICO		
University of Puerto Rico	25	28, 468
RHODE ISLAND		
University of Rhode Island	29	32, 731
SOUTH CAROLINA		
South Carolina State College	30	$28, 939
SOUTH DAKOTA		
State University of South Dakota	27	36, 966
TENNESSEE		
Tennessee Agricultural and Industrial State University	30	31, 721
University of Tennessee	32	52, 844
TEXAS		
Texas Christian University	30	34, 649
Texas Technological College	29	31, 835
University of Houston	30	30, 624
UTAH		
Utah State University of Agriculture and Applied Science	30	51, 747
VIRGINIA		
College of William and Mary	30	43, 361
Hampton Institute	29	38, 863
WASHINGTON		
Central Washington State College	30	52, 460
WEST VIRGINIA		
West Virginia University	27	41, 278
WISCONSIN		
Marquette University	36	36, 235
WYOMING		
University of Wyoming	29	65, 601

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[1] Based on data available as of Nov. 1, 1962.

Table 27.—Enrollment and contract price for 1961–62 regular session counseling and guidance training institutes under title V(B), by State and institution: Fiscal year 1961

Institution, by State	Number of enrollees	Contract price [1]
Total	**562**	**$3,480,980**
ALABAMA		
University of Alabama		187,580
First semester	26	
Second semester	30	
ARIZONA		
Arizona State University		170,615
First semester	26	
Second semester	30	
CALIFORNIA		
University of Southern California	29	196,820
FLORIDA		
University of Florida	32	224,440
GEORGIA		
Atlanta University	25	140,965
ILLINOIS		
University of Illinois	29	217,495
INDIANA		
Purdue University	30	209,050
MASSACHUSETTS		
Boston University	29	188,885
MICHIGAN		
Michigan State University of Agriculture and Applied Science	30	227,080
MINNESOTA		
University of Minnesota	30	229,609
NEW YORK		
Teachers College, Columbia University	32	237,548
NORTH DAKOTA		
University of North Dakota	30	196,639
OHIO		
The Ohio State University	32	227,694
OKLAHOMA		
Oklahoma State University of Agriculture and Applied Science	30	176,607
OREGON		
Oregon State System of Higher Education	30	214,563
TEXAS		
University of Texas	29	209,820
WASHINGTON		
Washington State University	33	227,089

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[1] Based on data available as of Nov. 1, 1962.

Table 28.—Enrollment and contract price for 1962–63 regular session counseling and guidance training institutes under title V(B), by State and institution: Fiscal year 1962

Institution, by State	Number of enrollees	Contract price [1]
Total	**620**	[2] **$4,454,226**
ARIZONA		
Arizona State University	30	203,941
CALIFORNIA		
University of Southern California	30	204,383
FLORIDA		
University of Florida	29	228,382
GEORGIA		
Atlanta University	30	171,096
ILLINOIS		
University of Illinois	25	205,070
INDIANA		
Purdue University	30	224,845
MASSACHUSETTS		
Boston University	29	190,010
MICHIGAN		
Michigan State University of Agriculture and Applied Science	30	206,555
The University of Michigan	30	248,070
MINNESOTA		
University of Minnesota	30	227,074
MISSOURI		
University of Missouri	29	216,335
NEW YORK		
The City University of New York	29	165,275
Teachers College, Columbia University	33	281,881
NORTH DAKOTA		
University of North Dakota	30	193,693
OHIO		
The Ohio State University	30	217,369
OREGON		
Oregon State System of Higher Education	30	213,151
PENNSYLVANIA		
The Pennsylvania State University	29	180,664
TEXAS		
University of Texas	27	186,383
WASHINGTON		
Washington State University	30	217,828
WISCONSIN		
University of Wisconsin	30	226,350
WYOMING		
University of Wyoming	30	224,285

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[1] Based on data available as of Nov. 1, 1962.

[2] Includes block obligation of $38,806 not expended as of Nov. 1, 1962.

Table 29.—Modern foreign languages taught at National Defense language and area centers, by support status, under title VI, and amount of Federal support, by State and sponsoring institution: Fiscal years 1961 and 1962

Institution, by State	Languages taught at NDEA language and area centers		Amount of Federal support	
	With Federal support	Without Federal support	FY 1961	FY 1962
1	2	3	4	5
ARIZONA				
The University of Arizona, Tucson.	Chinese, Japanese, Hindi.		$23,985	$24,192
CALIFORNIA				
Stanford University, Stanford.	Chinese, Japanese		43,870	49,124
University of California, Berkeley.	Hindi-Urdu, Persian, Tamil, Telugu.		51,097	51,315
	Russian, Polish, Serbo-Croatian, Hungarian.	Czech, Bulgarian,* Slovak,* Ukrainian.*	42,964	43,182
University of California, Los Angeles.	Afrikaans, Hausa, Luganda, Swahili, Bambara, Ewe, Twi, Xhosa, Zulu.	Ibo, Yoruba, Kikonga, Shona.	24,412	24,649
	Spanish, Portuguese, Nahuatl.		(1)	(2)
	Arabic, Armenian, Hebrew, Kabyle, Persian, Uigur, Uzbek.	Turkish, Amharic, and other Ethiopic languages.	47,460	47,697
University of Southern California, Los Angeles.	Chinese, Russian	Japanese	28,000	28,190
COLORADO				
University of Colorado, Boulder.	Russian, Czech, Polish, Hungarian.	Slovak,* Ukrainian.*	28,839	29,008
CONNECTICUT				
Yale University, New Haven.	Burmese, Vietnamese, Thai.	Indonesian-Malay, Tagalog.	33,353	39,470
DISTRICT OF COLUMBIA				
Howard University, Washington.	Swahili, Setswana, Yoruba.		9,410	10,398
FLORIDA				
University of Florida, Gainesville.	Portuguese, Spanish		(1)	(2)
HAWAII				
University of Hawaii, Honolulu.	Chinese, Japanese	Korean	24,694	24,694
	Indonesian, Javanese, Thai.		12,033	18,259
ILLINOIS				
The University of Chicago, Chicago.	Chinese, Japanese		25,237	25,317
	Hindi-Urdu, Bengali, Tamil, and other Dravidian languages.	Munda*	70,742	77,342
ILLINOIS—Con.				
University of Illinois, Urbana.	Russian	Serbo-Croatian	$49,992	$50,070
INDIANA				
Indiana University, Bloomington.	Russian, Polish, Serbo-Croatian.	Czech	54,347	55,235
	Finnish, Hungarian, Korean, Turkish.	Azerbaijani, Estonian, Yakut, Mongolian: Khalkha. Minor Uralic-Altaic languages of the Soviet Union.		14,008
IOWA				
State University of Iowa, Iowa City.	Chinese		11,812	11,923
KANSAS				
University of Kansas, Lawrence.	Chinese, Japanese		16,300	18,558
LOUISIANA				
Tulane University, New Orleans.	Spanish, Portuguese		(1)	(2)
MARYLAND				
The Johns Hopkins University, School of Advanced International Studies, Washington, D.C.	Arabic	Hebrew, Turkish	14,606	14,606
MASSACHUSETTS				
Harvard University, Cambridge.	Chinese, Japanese, Korean, Tibetan.	Mongolian	53,650	53,650
	Arabic, Persian, Turkish.	Armenian, Hebrew	57,149	57,149 [3] 18,558
	Russian, Bulgarian, Czech, Polish, Serbo-Croatian.		42,177	42,241
MICHIGAN				
Michigan State University, East Lansing.	Ibo, Yoruba, Swahili, Hausa, Bini, Twi.		25,759	41,942 [3] 14,693
The University of Michigan, Ann Arbor.	Chinese, Japanese		27,457	28,532
	Arabic, Kurdish, Persian, Turkish.		28,095	24,134
	Russian, Polish		76,543	76,617
NEW JERSEY				
Princeton University, Prin[illegible]n.	Arabic, Persian, Turkish.		65,693	55,904

NEW YORK				
Columbia University, New York.	Hungarian, Finnish. Minor Uralic languages of the Soviet Union.		$57,352	$35,750
	Russian, Serbo-Croatian.	Czech, Polish, Ukrainian.	41,275	41,324
	Chinese, Japanese, Korean.		27,379	43,283
	Spanish, Portuguese		(1)	(2)
Cornell University, Ithaca.	Hindi-Urdu, Sinhalese.		30,435	34,491
	Burmese, Indonesian-Malay, Thai, Vietnamese.		54,348	63,421 [3] 6,916
	Japanese, Chinese: Fukienese; Mandarin.			31,626
Fordham University, New York.	Russian	Czech, Polish, Lithuanian.	27,180	27,230
New York University, New York.	Portuguese		49,012	46,560
OREGON				
Portland State College, Portland.	Arabic, Hebrew, Persian, Turkish.		29,097	29,300
PENNSYLVANIA				
Duquesne University, Pittsburgh.	Swahili		18,182	20,800
University of Pennsylvania, Philadelphia.	Hindi-Urdu, Bengali, Marathi, Nepali, Tamil, Telugu.	Malayalam, Sinhalese.*	72,162	73,632
	Russian, Polish, Serbo-Croatian.	Lettish, Lithuanian, Ukrainian.	38,964	39,032
PENNA.—Con.				
University of Pittsburgh, Pittsburgh.	Chinese	Japanese	$20,857	$24,396
TENNESSEE				
Vanderbilt University, Nashville.	Russian		40,065	40,155
TEXAS				
The University of Texas, Austin.	Spanish, Portuguese		(1)	(2)
	Hindi, Telugu		12,028	12,145
	Arabic, Hebrew, Persian.	Armenian	29,121	29,940
UTAH				
University of Utah, Salt Lake City.	Arabic, Persian, Turkish.		39,685	39,756
WASHINGTON				
University of Washington, Seattle.	Japanese, Russian, Tibetan.	Chinese, Korean, Mongolian, Polish, Serbo-Croatian, Thai, Vietnamese.	68,610	74,720
WISCONSIN				
The University of Wisconsin, Madison.	Hindi, Telugu, Kannada.		44,338	44,428 [3] 14,741
	Portuguese, Spanish		35,654	[4] 65,705
			[5] 1,851,007	[6] 2,110,000

*Instruction available upon request.

[1] Received $20,000 in FY 1962 funds for spring semester, 1961–62.

[2] Received $40,000 for academic year 1962–63, of which $20,000 was from FY 1962 funds and $20,000 from FY 1963 funds.

[3] Summer support only, 1962–63.

[4] Funded in part from FY 1963 funds.

[5] $1,751,007 from FY 1961 funds; $100,000 from FY 1962 funds.

[6] $1,990,000 from FY 1962 funds; $130,000 from FY 1963 funds.

Table 30.—Language and area centers under title VI, and amount of Federal contribution, 1961–62 and 1962–63

Language group	1961–62			1962–63		
	Number of centers	Amount	Percent	Number of centers	Amount	Percent
1	2	3	4	5	6	7
Total	**52**	**[1] $1,851,007**	**100**	**53**	**[2] $2,110,000**	**100**
African	4	77,763	4	4	112,471	5
East Asian	11	290,828	16	11	335,295	16
Latin American (including Portuguese)	7	[1] 184,666	10	7	[2] 312,265	15
Near and Middle Eastern	8	310,906	17	8	317,044	15
Slavic	10	442,346	24	10	444,094	21
Slavic-East Asian	2	96,610	5	2	102,910	5
South Asian	6	290,802	15	6	308,094	15
Southeast Asian	3	99,734	6	3	128,069	6
Uralic-Altaic	1	57,352	3	2	49,758	2

[1] Includes $100,000 in FY 1962 funds for the support of 5 new Latin American Centers established during the spring semester. The remaining 47 Centers were supported with $1,751,007 in FY 1961 funds.

[2] Includes $130,000 in FY 1963 funds.

Table 31.—Geographic distribution and amount of Federal support under title VI of language and area centers, 1961–62 and 1962–63

State	1961–62 Number of centers	1961–62 Amount of Federal support	1962–63 Number of centers	1962–63 Amount of Federal support
1	2	3	4	5
Total	**52**	[1] **$1,851,067**	**53**	[2] **$2,110,000**
Arizona	1	23,985	1	24,192
California	7	257,803	7	294,157
Colorado	1	28,839	1	29,008
Connecticut	1	33,353	1	39,470
District of Columbia	2	24,016	2	24,994
Florida	1	20,000	1	40,000
Hawaii	2	36,727	2	42,953
Illinois	3	145,971	3	152,729
Indiana	1	54,347	2	69,243
Iowa	1	11,812	1	11,923
Kansas	1	16,300	1	18,556
Louisiana	1	20,000	1	60,000
Massachusetts	3	152,978	3	171,508
Michigan	4	157,854	4	165,828
New Jersey	1	65,693	1	55,904
New York	9	332,566	9	370,604
Oregon	1	29,097	1	29,300
Pennsylvania	4	150,165	4	157,949
Tennessee	1	40,065	1	40,155
Texas	3	61,149	3	82,065
Utah	1	39,685	1	39,736
Washington	1	68,610	1	74,720
Wisconsin	2	79,902	2	124,874

[1] Includes $100,000 in FY 1962 funds for the support of the five new Latin American Centers established during the spring semester.

[2] Includes $130,000 in FY 1963 funds.

Table 33.—Number of modern foreign language fellowships under title VI, by State of institution: Fiscal years 1961 and 1962

State	Number of fellows: Fiscal year 1961	Number of fellows: Fiscal year 1962
Arizona	2	4
California	124	164
Colorado	4	6
Connecticut	16	34
District of Columbia	28	24
Florida		11
Hawaii	7	6
Illinois	40	56
Indiana	48	50
Iowa		3
Kansas	1	2
Louisiana		7
Massachusetts	102	136
Michigan	59	98
Minnesota	1	2
Missouri		2
New Jersey	31	27
New Mexico		9
New York	155	173
North Carolina		6
Oklahoma		1
Pennsylvania	37	44
Rhode Island	1	4
Tennessee	2	3
Texas	14	28
Utah	5	5
Vermont	8	2
Washington	35	40
Wisconsin	44	71
Total	**763**	[1] **1,006**

[1] Plus 33 postdoctorals.

Table 32.—Number of modern foreign language fellowship awards under title VI, by language: Fiscal years 1961 and 1962

Language	Number of awards: Fiscal year 1961	Number of awards: Fiscal year 1962
Total	**763**	[1] **1,006**
Afrikaans	1	1
Albanian	1	1
Arabic	95	108
Bambara		4
Bengali	8	12
Berber languages (Kabyle)	1	
Bulgarian	1	2
Burmese	1	2
Chinantec		2
Chinese	106	133
Czech	3	5
Danish	1	2
Estonian	2	
Finnish	11	14
Georgian	2	
Greek	2	2
Hausa		1
Hebrew	12	12
Hindi-Urdu	74	73
Hungarian	5	8
Ibo		2
Icelandic	1	1
Indonesian	7	13
Japanese	100	103
Kannada		2
Khalkha-Mongolian	4	3
Kikongo		1
Korean	5	10
Lithuanian		1
Malayalam		1
Marathi	1	1
Mixtec		1
Nahuatl		1
Nepali		1
Norwegian	2	2
Pashto	1	1
Persian	7	14
Polish	7	9
Portuguese	55	77
Quechua	2	5
Rumanian	1	6
Russian	190	175
Serbo-Croatian	7	9
Shona		1
Spanish		100
Swahili	6	26
Swedish	3	3
Tamaricht		1
Tamil	2	3
Telugu	4	8
Thai	4	10
Tibetan	2	2
Turkish	16	14
Twi		1
Uzbek	1	2
Vietnamese	3	5
Visayan	1	1
Yoruba	3	6

[1] Plus 33 postdoctorals.

Table 34.—Funds obligated under title VI for research and studies in modern foreign languages, by language group and area: Fiscal year 1961

Language group and area	Total funds obligated (sum of columns 3 and 8)	Projects contracted in FY 1961					Supplementary funds obligated for earlier projects (contracted in FY 1959 and FY 1960)
		Funds obligated				Number of projects	
		Total	Studies and surveys	Methods of instruction	Specialized materials		
1	2	3	4	5	6	7	8
Total	**$1,985,334**	**$787,129**	**$260,343**	**$162,410**	**$374,377**	**[1] 46**	**$1,198,205**
Common languages	915,483	251,821	51,206	59,678	140,937	13	663,662
Uncommon languages	781,239	266,696	25,080	....	231,607	22	534,543
Near and Middle East	175,276	5,067	....	....	5,067	1	170,209
South Asia	152,911	49,239	....	....	49,239	3	108,672
Southeast Asia	116,658	62,094	....	....	62,094	4	54,564
Far East	131,167	79,466	....	....	79,466	2	101,701
Uralic and Altaic	....	....	....	....	....	....	....
Africa	31,988	31,988	....	....	31,988	2	....
Europe and other American	77,154	53,753	....	....	53,753	7	23,401
Composite	95,985	25,080	25,080	....	....	3	70,906
Composite and miscellaneous	288,612	288,612	184,047	102,732	1,833	11	....

[1] Current projects, in some instances, consist of more than one contract. The total number of contracts for FY 1961 is *50*.

Table 35.—Funds obligated under title VI for research and studies in modern foreign languages, by language group and area: Fiscal year 1962

Language group and area	Total funds obligated (sum of columns 3 and 8)	Projects contracted in FY 1962					Supplementary funds obligated for earlier projects (contracted in FY 1959 through FY 1961)
		Funds obligated				Number of projects	
		Total	Studies and surveys	Methods of instruction	Specialized materials		
1	2	3	4	5	6	7	8
Total	**$2,000,000**	**$737,773**	**$158,671**	**$123,926**	**$455,176**	**[1] 34**	**$1,262,227**
Common languages	743,392	298,053	86,339	97,538	114,176	9	445,339
Uncommon languages	1,115,045	400,887	59,887	....	341,000	21	714,158
Near and Middle East	152,956	119,605	....	....	119,605	3	33,351
South Asia	261,945	74,597	....	....	74,597	4	187,348
Southeast Asia	99,270	....	....	....	....	0	99,270
Far East	134,378	31,178	....	....	31,178	2	103,200
Uralic and Altaic	27,366	24,766	19,355	....	5,411	2	2,600
Africa	201,048	67,813	....	....	67,813	3	133,235
Europe and other American	87,804	15,396	....	....	15,396	1	72,408
Composite	130,278	47,532	40,532	....	7,000	4	82,746
Composite and miscellaneous	141,563	38,833	12,445	26,388	....	4	102,730

[1] Current projects, in some instances, consist of more than one contract. The total number of contracts for FY 1962 is 42.

Table 36.—Language development research and studies projects under title VI, by State and institution: Contracts initiated, fiscal year 1961

Surveys and Studies

Contractor by State	Project	Amount of contract FY61
DISTRICT OF COLUMBIA		
Georgetown University	Work-conferences of specialists to develop valid and acceptable procedures for the evaluation of FLES programs.	$4,886
	Conference on the meaning and role of culture in foreign language teaching for those who will teach the culture and civilization courses in the 1961 NDEA language institutes.	4,630
Organization of American States.	Report and recommendations on higher education in Latin America.	24,189
John F. Wellemeyer	Resurvey of the needs of the Federal Government for foreign language skills.	5,750
FLORIDA		
University of Miami	Inventory of professional personnel and skills available among Cuban emigres in the United States.	6,791
ILLINOIS		
University of Chicago	Study-conference of high school teachers of Russian and consultants to develop recommendations for strengthening the high school Russian program.	5,860
INDIANA		
Indiana University	Developing languages of the world file at Indiana University.	65,137 [1]130,273
	Interdisciplinary work-conference on paralanguage and kinesics.	10,005
MARYLAND		
Herman R. Allen	Study leading to the development of a postdoctoral foreign language fellowship program.	1,893
Alfred S. Hayes	Study and critical evaluation of research and experimentation relevant to the teaching and learning of foreign languages.	27,465 [1]53,865
MARYLAND—Con.		
Jeane J. Kirkpatrick	Resurvey of the needs of the Federal Government for foreign language skills.	$2,300
Don G. Stuart	Survey of the present status of linguistic and comparative linguistic studies in Asian languages.	10,300
MASSACHUSETTS		
Tufts University	Interdisciplinary research seminar on psycholinguistics and foreign language teaching.	2,714
MICHIGAN		
Association for Asian Studies, Inc.	National conference on the strengthening and integration of South Asian language and area studies in the United States.	12,896
University of Michigan	Conference on specialized training resources for the Peace Corps.	3,860
MINNESOTA		
Saint Paul, Minn., Public Schools.	The teaching of Spanish in the elementary schools and its effect on achievement in other selected subject areas.	6,067 [1]12,134
NEW JERSEY		
Somerville, N.J., Board of Education.	Evaluation of the effect of foreign language study in the elementary school upon achievement in the high school.	14,367
NEW YORK		
Cornell University	Study conference to determine acceptable specifications for standardized foreign language reading proficiency tests for graduate students.	7,417
The Modern Language Association of America.	Survey and statistical data on modern foreign language enrollments in junior colleges, colleges, and universities in academic year, 1961–62.	40,676

Methods of Instruction

Contractor by State	Project	Amount of contract FY61
CALIFORNIA		
Exeter, Calif., High School	Experimentation to determine the extent to which close correlation of foreign language study with study in another subject area has a measurable effect on pupil achievement in either area.	$10,826
Stanford University	Application of learning theory to problems of second language acquisition by quantitative analysis.	64,649 [1]129,297
INDIANA		
Indiana University	Implementation and evaluation of a multiple credit intensive audiolingual approach in elementary French.	$48,852 [1]97,703
MICHIGAN		
University of Michigan	Experimental analysis of the control of speech production and perception.	38,083 [1]76,165

Specialized Materials for the Commonly Taught Languages

CONNECTICUT		
Yale University	Films depicting new techniques in teaching modern foreign languages.	$85,000 [1] 101,600
DISTRICT OF COLUMBIA		
Dan Desberg, Foreign Service Institute, Department of State.	Planning revision of the NDEA-sponsored Manual and Anthology of Applied Linguistics.	744
MICHIGAN		
Kenneth L. Pike	Planning revision of the NDEA-sponsored Manual and Anthology of Applied Linguistics.	570
NEW YORK		
American Council of Learned Societies.	Compilation of a new basic list of Russian books to facilitate language and area studies.	$5,950 [1] 7,550
Modern Language Association of America.	Revision of the MLA materials list for use by teachers of modern foreign languages.	47,069
PENNSYLVANIA		
Simon Belasco, Pennsylvania State University.	Planning revision of the NDEA-sponsored Manual and Anthology of Applied Linguistics.	764
	Conference with linguist-writers for preparation of revised edition of the NDEA-sponsored Manual and Anthology of Applied Linguistics.	840

Specialized Materials for the "Neglected" Languages

CALIFORNIA		
San Francisco State College	Audio-lingual instructional materials in Chinese-Mandarin for beginning students in secondary schools.	$28,016 [1] 56,033
University of California, Los Angeles.	Preparation of outline history and anthology of Brazilian literature.	5,698
	Revision of Einar Haugen's *Spoken Norwegian.*	4,164
CONNECTICUT		
Hartford Seminary Foundation.	A reference grammar of Panjabi	6,667
Yale University	A reference grammar of Visayan	22,838
	Revision of encyclopedic handbook on Indonesia.	18,766
DISTRICT OF COLUMBIA		
Foreign Service Institute, U.S. Department of State.	Development and reproduction of a modern Greek intermediate reader.	1,867 [1] 3,467
	Outline of standard Thai grammar	1,593 [1] 2,780
	Chinese-English glossary	1,450
	Basic courses in 11 African languages	21,715 [1] 88,657
	Basic course and basic reader in Rumanian	5,720 [1] 16,705
ILLINOIS		
University of Chicago	Research on South Asian Languages (Hindi-Urdu and Bengali).	40,118 [1] 80,236
MARYLAND		
Don G. Stuart	A study to expand and reorganize existing knowledge of selected languages of Asia; application of structural realist linguistic theory in comparative analysis of these languages.	17,610 [1] 35,220
MASSACHUSETTS		
Harvard University	Bulgarian reader	$1,641
MICHIGAN		
John J. Pia, English Language Institute, University of Michigan.	Linguistic analysis of Somali	2,528
NEW YORK		
The Broadcasting Foundation of America.	Procurement and distribution of recordings for research and instructional purposes.	5,595
Cornell University	Quechua language materials project	29,436 [1] 58,872
TEXAS		
Agricultural and Mechanical College of Texas.	Production of a short Bengali-English, English-Bengali dictionary.	2,454 [1] 3,190
WASHINGTON		
University of Washington	Annotated international bibliography of research of foreign language teaching, 1945-61.	1,833
WISCONSIN		
University of Wisconsin	Dictionary of modern colloquial Norwegian for American students.	15,793 [1] 47,380

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[1] Total cost.

Table 37.—Language development research and studies projects under title VI, by State and institution: Contracts initiated, fiscal year 1962

Surveys and Studies

Contractor by State	Project	Amount of contract FY62
DISTRICT OF COLUMBIA		
Library of Congress	Preliminary determination of pedagogic utility of the archive of hispanic literature on tape.	$4,900 [1] 15,000
U.S. Department of State	Language and area study programs in American universities.	2,320
INDIANA		
Indiana University	The academic selection of candidates for participation in Indiana U.'s honors program in foreign languages for high school students.	14,370
	Study-conference to determine the need for increased and improved instruction in the Uralic-Altaic languages.	19,355
MICHIGAN		
Ernest McCarus	Field survey and study of 1962 NDEA and other intensive summer instruction programs in the uncommon languages.	1,941
Joseph Yamagiwa	do	3,648
NEW YORK		
Cornell University	A survey to determine the need for increased and improved instruction in French, German, and Russian on the secondary and college levels using standardized proficiency tests for graduate students.	39,107 [1] 78,214
NEW YORK—Con.		
Modern Language Association of America (Center for Applied Linguistics).	Study-conference to determine the need for and feasibility of increasing and improving instruction in modern foreign languages through the performance of certain research, studies, and surveys.	$10,962
Modern Language Association of America.	Manpower in the neglected languages: A survey of enrollments, programs, and personnel in junior colleges, senior colleges, and universities.	28,850 [1] 50,511
	Foreign language enrollments in all U.S. secondary schools (grades 7-12) for 1962-63.	17,000 [1] 42,305
National Educational Television and Radio Center.	Production of a multi-media summary presentation of developments in modern foreign language teaching since 1958.	4,945
PENNSYLVANIA		
Henry Hoenigswald	Field survey and study of 1962 NDEA and other intensive summer instruction programs in the uncommon languages.	2,233
University of Pennsylvania	A cross-cultural study of semantic structure	7,500 [1] 15,330
VIRGINIA		
Richard Noss	Field survey and study of 1962 NDEA and other intensive summer instruction programs in the uncommon languages.	1,504

Methods of Instruction

Contractor by State	Project	Amount of contract FY62
CALIFORNIA		
Madeleine Mathiot	A study of method in language and culture research.	$8,740 [1] 20,740
COLORADO		
The University of Colorado	The general phonetic characteristics of languages	70,574 [1] 141,148
OHIO		
Ohio State University	A study of underachievement in language learning.	$26,964
WASHINGTON		
University of Washington	Evaluation of three grammatical models in the teaching of foreign languages.	17,648 [1] 52,946

Specialized Materials for the Commonly Taught Languages

Contractor by State	Project	Amount of contract FY62
COLORADO		
University of Colorado	Elaboration and experimental evaluation of procedures and specialized materials for in-service training of secondary school teachers of modern foreign languages.	$8,874
INDIANA		
Indiana University	Preparation of an intensive basic course to prepare linguists to use Russian.	4,658 [1] 9,315
PENNSYLVANIA		
University of Pennsylvania	A dictionary of Russian personal names with a guide to stress and morphology.	$10,801 [1] 21,602
University of Pittsburgh	Addition of a semantic index to the basic spoken German word list.	45,412
WASHINGTON		
University of Washington	Groundwork for a structural description of French culture.	44,431

Specialized Materials for the "Neglected" Languages

CALIFORNIA		
University of California, Berkeley.	A manual of Amharic	$10,116 [1] 22,938
University of California, Los Angeles.	Preparation of analysis and teaching materials in Somali.	24,379
	Preparation of a basic course in spoken Kabyle	7,690 [1] 17,683
COLORADO		
University of Colorado	A course in Brazilian Portuguese for speakers of Spanish.	15,396 [1] 30,791
CONNECTICUT		
Hartford Seminary Foundation.	A Hausa syntax	9,456
	A grammar of Sango	16,172
Yale University	Composition and preparation of camera copy of the Jorden *Beginning Japanese.*	4,631
DISTRICT OF COLUMBIA		
Georgetown University	The production of Arabic (-English) dictionaries and basic courses.	88,197 [1] 264,592
U.S. Department of State	Production of a Hungarian basic course	5,411 [1] 9,411
	Preparation of tape recordings in Japanese to accompany the *Beginning Japanese Textbook* by Eleanor H. Jorden.	1,534
MASSACHUSETTS		
Harvard University	Introductory Japanese reader	17,376 [1] 26,065
MICHIGAN		
University of Michigan	Reader for pre-modern and modern Japanese literature and history.	$27,637
NEW YORK		
Modern Language Association of America.	The preparation of two language handbooks (Swahili and Bengali).	7,000 [1] 25,772
Pratt Institute	Investigation of the use of photodocuments in the teaching of the language, cultures, and civilization of the Near East.	22,352 [1] 44,706
PENNSYLVANIA		
University of Pennsylvania	Preparation of a Gujarati reference grammar and material for a basic course in Gujarati.	14,495 [1] 38,600
	Students' manual of modern formal Tamil	23,437 [1] 46,875
	A concise Marathi-English dictionary of the spoken and newspaper language.	24,117 [1] 72,350
UTAH		
Joseph Khoury	High school Arabic teaching materials, Phase II.	9,056
WISCONSIN		
University of Wisconsin	Research on South Asian languages (Kannada and Telugu).	12,548 [1] 37,007

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[1] Total cost.

Table 38.—Enrollment of elementary and secondary school teachers in language institutes under title VI, summer 1961 and academic year 1961–62

Language taught	Total enrollment (elementary and secondary)	Elementary school teachers	Secondary school teachers
1961-62 (75 institutes)	**3.756**	**495**	**3.261**
Summer 1961 (68 institutes)	**3.595**	**483**	**3.112**
Chinese	9	3	6
French	1.544	188	1.356
1st level	1.464	188	1.276
2d level	80	...	80
German	307	32	275
1st level	229	32	197
2d level	78	...	78
Hebrew	37	...	37
Italian	41	...	41
Japanese	20	20	...
Russian	188	...	188
1st level	148	...	148
2d level	40	...	40
Spanish	1.449	240	1.209
1st level	1.397	240	1.157
2d level	52	...	52
Academic year 1961-62 (7 institutes)	**161**	**12**	**149**
French	43	...	43
German	40	2	38
Russian	25	...	25
Spanish	53	10	43

Table 39.—Enrollment of elementary and secondary school teachers in language institutes under title VI, summer 1962 and academic year 1962–63

Language taught	Total enrollment (elementary and secondary)	Elementary school teachers	Secondary school teachers
1962-63 (85 institutes)	**4.413**	**527**	**3.886**
Summer 1962 (80 institutes)	**4.294**	**505**	**3.789**
Chinese	44	14	30
French	1.786	190	1.596
1st level	1.629	190	1.439
2d level	157	...	157
German	546	56	490
1st level	468	49	419
2d level	78	7	71
Italian	24	...	24
Russian	226	...	226
1st level	185	...	185
2d level	41	...	41
Spanish	[illegible]	[illegible]	[illegible]
1st level	1.403	177	1.226
2d level	265	68	197
Academic year 1962-63 (5 institutes)	**119**	**22**	**97**
German	44	10	34
Russian	30	...	30
Spanish	45	12	33

Table 40.—Enrollment, languages taught, and costs of 1961–62 academic year language institutes under title VI: Fiscal year 1961

Institution, by State	Language and level[1]	Number of enrollees	Cost
CALIFORNIA			
San Francisco State College..	Spanish (E & S)....	24	$155, 476
COLORADO			
University of Colorado.......	German (E & S)....	19	134, 994
GEORGIA			
Emory University............	French (S)..........	21	138, 150
INDIANA			
Indiana University...........	Russian (S)..........	25	161, 268
NEW MEXICO			
University of New Mexico....	Spanish (E & S)....	29	174, 613
OHIO			
Kent State University........	German (S)..........	21	133, 389
PENNSYLVANIA			
Pennsylvania State University.	French (S)..........	22	133, 128
Total (7 institutes)...	**Elementary: 3**..... **Secondary: 7**......	**161**	**1,031,018**

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[1] (E) Elementary school teachers; (S) Secondary school teachers.

Table 41.—Enrollment, languages taught, and costs of 1962–63 academic year language institutes under title VI: Fiscal year 1962

Institution, by State	Language and level[1]	Number of enrollees	Cost
CALIFORNIA			
San Francisco State College..	Spanish (E & S)....	25	$158, 037
COLORADO			
University of Colorado.......	German (E & S)....	20	146, 444
INDIANA			
Indiana University...........	Russian (S)..........	30	160, 085
NEW MEXICO			
University of New Mexico....	Spanish (S)..........	20	142, 740
OHIO			
Kent State University........	German (S)..........	24	143, 543
Total ([illegible] institutes)..	**Elementary: 2**..... **Secondary: 5**......	**119**	[2] **763, 034**

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[1] (E) Elementary school teachers; (S) Secondary school teachers.

[2] Includes $[illegible] in unexpended funds returned by institutions.

Table 42.—Enrollment, languages taught, and costs of 1961 short-term language institutes under title VI: Fiscal year 1961

Institution, by State	Language and level [1]	Number of enrollees	Cost
ALABAMA			
University of Alabama	French (S), Spanish (S).	40	$78,147
CALIFORNIA			
San Francisco State College	Chinese (E & S), Russian (S).	72	115,0[illegible]
Stanford University (at Bad Boll, Germany).	German (S) (2d level).	78	145,067
University of California, Berkeley.	French (S), Italian (S).	47	67,696
University of California, Los Angeles.	French (S), Spanish (S).	72	107,162
University of Southern California.	Spanish (S)	42	64,708
COLORADO			
University of Colorado	French (S), German (S), Spanish (S).	100	137,509
CONNECTICUT			
Central Connecticut State College.	French (S), Italian (S).	46	73,589
DELAWARE			
University of Delaware	French (E & S), Spanish (E & S).	60	86,224
DISTRICT OF COLUMBIA			
Georgetown University	French (E & S)	66	53,158
FLORIDA			
University of Florida	French (S), Spanish (S).	53	82,841
GEORGIA			
Georgia State College for Women.	French (S) Spanish (S).	59	86,434
HAWAII			
University of Hawaii	Japanese (E), French (S).	50	59,065
ILLINOIS			
Knox College	Spanish (S)	40	55,854
Northwestern University	Russian (S)	35	54,897
Rosary College	French (E & S), Spanish (E & S).	79	88,476
Southern Illinois University	German (S)	40	57,984
INDIANA			
Indiana University (partly at Moscow, USSR).	Russian (S) (2d level).	40	68,900
Purdue University	French (S), Spanish (S).	69	104,955
University of Notre Dame	French (S), Spanish (S).	50	51,530
IOWA			
Coe College	French (S), Spanish (S).	42	73,439
KANSAS			
University of Kansas	Spanish (E)	60	89,480
University of Wichita	Spanish (S)	34	49,577
LOUISIANA			
Louisiana State University	French (S), Spanish (S).	63	86,877
Southern University	French (S), Spanish (S).	42	68,002
MAINE			
Bowdoin College	French (S)	40	52,691
University of Maine	French (E & S)	79	99,628
MARYLAND			
University of Maryland	French (S), Spanish (S).	39	60,249
MASSACHUSETTS			
Tufts University	French (E), Spanish (E).	47	$62,228
MICHIGAN			
Michigan State University	French (E & S), Spanish (E & S).	74	126,547
MINNESOTA			
College of St. Teresa	French (S), Spanish (S).	69	71,609
University of Minnesota	German (E), Spanish (E & S).	64	113,190
MISSISSIPPI			
University of Mississippi	French (S), Spanish (S).	39	63,916
MISSOURI			
University of Kansas City	French (S), Spanish (S).	60	74,354
University of Missouri	French (S), Spanish (S).	61	78,866
Washington University	French (E & S)	43	62,154
MONTANA			
Montana State University	French (S), Spanish	52	76,079
NEBRASKA			
University of Nebraska	French (S), Spanish (S).	53	76,446
NEVADA			
University of Nevada	French (S), Spanish (S).	47	80,757
NEW HAMPSHIRE			
Dartmouth College	Russian (S)	50	67,954
Rivier College	French (S)	32	37,535
University of New Hampshire.	French (S), Spanish (S).	60	75,868
NEW JERSEY			
Rutgers—The State University.	French (S), Spanish (S).	47	60,870
NEW YORK			
Colgate University	French (S), Spanish (S).	60	88,240
Hamilton College	French (S)	42	52,568
Hofstra College	German (S), Spanish (S).	50	74,436
Iona College	French (E), Spanish (E).	58	62,182
New York University	French (S), Spanish (S).	63	98,707
St. Lawrence University	French (S)	42	57,807
Yeshiva University	Hebrew (S)	37	58,444
NORTH CAROLINA			
Appalachian State Teachers College.	French (S), Spanish (S).	48	78,046
University of North Carolina	French (E & S)	45	58,376
NORTH DAKOTA			
University of North Dakota	French (S), German (S).	42	67,229
OHIO			
Kent State University	Spanish (E)	36	51,080
OKLAHOMA			
University of Oklahoma	French (S), Spanish (S).	60	95,313
OREGON			
University of Oregon (at Tours, France).	French (S) (2d level).	80	138,658

[1] (E) Elementary school teachers; (S) Secondary school teachers.

Table 42.—Enrollment, languages taught, and costs of 1961 short-term language institutes under title VI: Fiscal year 1961—Continued

Institution, by State	Language and level [1]	Number of enrollees	Cost
RHODE ISLAND			
University of Rhode Island	Spanish (S)	30	$46,002
SOUTH CAROLINA			
Converse College	French (S)	40	54,630
SOUTH DAKOTA			
South Dakota State College	Spanish (S)	43	65,953
TENNESSEE			
University of Tennessee	French (E & S), Spanish (E & S).	70	88,956
Vanderbilt University	French (S), Spanish (S).	48	71,027
TEXAS			
Texas Technological College	Spanish (E & S)	46	67,974
UTAH			
Utah State University	French (S), Spanish (S).	49	77,493
VIRGINIA			
Virginia State College	French (S), Spanish (S).	50	$69,270
WASHINGTON			
University of Washington	German (E & S)	57	96,794
WEST VIRGINIA			
West Virginia University	French (S), Spanish (S).	53	95,286
WISCONSIN			
University of Wisconsin	German (S), Spanish (S).	59	90,880
PUERTO RICO			
University of Puerto Rico	Spanish (S) (2d level).	52	75,555
Total (68 institutes)	**Elementary: 17** **Secondary: 64**	[illegible]	[illegible]

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[1] (E) Elementary school teachers; (S) Secondary school teachers

Table 43.—Enrollment, languages taught, and costs of 1962 short-term language institutes under title VI: Fiscal year 1962

Institution, by State	Language and level[1]	Number of enrollees	Cost
ARIZONA			
American Institute for Foreign Trade (at Quito, Ecuador).	Spanish (S) (2d level).	49	$77,104
University of Arizona (at Guadalajara, Mexico).	Spanish (S) (2d level).	52	95,028
CALIFORNIA			
Fresno State College	Spanish (E & S)	56	81,336
San Francisco State College	Chinese (E & S), Russian (S).	80	124,540
Stanford University (at Bad Boll, Germany).	German (E & S) (2d level).	78	145,913
University of the Pacific	Spanish (S)	39	67,321
University of Southern California.	Spanish (S)	55	77,960
COLORADO			
University of Colorado	German (S), Spanish (S).	95	149,900
CONNECTICUT			
Central Connecticut State College.	French (S), Italian (S).	59	85,160
DELAWARE			
University of Delaware	German (S)	40	60,486
DISTRICT OF COLUMBIA			
Georgetown University	French (E & S)	59	57,688
Howard University	French (S), Spanish (S).	40	71,107
FLORIDA			
University of Florida	French (S), Spanish (S).	57	100,164
University of Miami	French (S)	40	64,249
GEORGIA			
Emory University (at Besançon, France).	French (S) (2d level).	79	134,526
Woman's College of Georgia	French (S), Spanish (S).	60	86,565
ILLINOIS			
Bradley University	Spanish (S)	42	60,142
Knox College	Spanish (S)	39	58,729
Loyola University and Mundelein College.	French (S)	49	65,548
Northwestern University	Russian (S)	40	59,645
Rosary College	French (S), Spanish (S).	64	78,030
Southern Illinois University	German (S)	40	59,941
INDIANA			
Indiana University (partly at Moscow, USSR).	Russian (S) (2d level).	41	79,192
Purdue University	French (S), Spanish (S).	69	116,528
St. Mary's College	French (S)	49	56,066
University of Notre Dame	German (S), Spanish (S).	53	62,599
IOWA			
Coe College	French (S)	44	68,715
KANSAS			
University of Kansas	Spanish (E) (2d level).	64	103,370
University of Wichita	Spanish (S)	36	54,420
KENTUCKY			
University of Kentucky	French (S)	46	76,665
LOUISIANA			
Louisiana State University	French (S), Spanish (S).	65	86,991
MAINE			
Bowdoin College	French (S)	40	56,220
University of Maine	French (E & S)	78	107,870
MARYLAND			
University of Maryland	French (S), Spanish (S).	59	$93,246
MASSACHUSETTS			
Tufts University	French (E)	45	60,226
MICHIGAN			
Kalamazoo College	Spanish (S)	57	81,799
MINNESOTA			
College of St. Catherine	French (S)	60	78,805
College of St. Teresa	French (S), Spanish (S).	34	63,801
University of Minnesota	German (E), Spanish (E).	60	100,048
MISSISSIPPI			
University of Mississippi	French (S), Spanish (S).	53	87,095
MISSOURI			
University of Kansas City	French (S), Spanish (S).	55	76,883
MONTANA			
Montana State College	German (S)	57	85,319
Montana State University	French (S), Spanish (S).	49	79,620
NEBRASKA			
University of Nebraska	French (S), Spanish (S).	47	82,000
NEVADA			
University of Nevada	Spanish (S)	41	71,200
NEW HAMPSHIRE			
Dartmouth College	Russian (S)	48	77,349
St. Anselm's College	French (S)	40	51,195
University of New Hampshire	Spanish (S)	40	59,339
NEW JERSEY			
Princeton University	French (S), German (S).	85	116,198
Rutgers—The State University.	French (S), Spanish (S).	63	78,973
Seton Hall University	Chinese (E & S)	23	34,069
NEW YORK			
Colgate University	French (S), Spanish (S).	57	90,444
Hamilton College	French (S)	46	61,163
Hofstra College	German (S)	44	65,060
Iona College	French (E), Spanish (E & S).	74	92,551
New York University	French (S), Spanish (S).	84	108,925
St. Lawrence University	French (S)	56	81,698
NORTH CAROLINA			
Appalachian State Teachers College.	French (S), Spanish (S).	58	95,473
University of North Carolina	French (E & S)	58	83,095
NORTH DAKOTA			
University of North Dakota	French (S)	37	61,296
OHIO			
Kent State University	Spanish (E)	46	68,404
Ohio State University	French (S), Spanish (S).	59	86,489
OKL[illegible]A			
University of O[illegible]oma	French (S), Spanish (S).	62	99,615
OREGON			
University of Oregon (at Tours, France).	French (S) (2d level).	78	134,096

Table 43.—Enrollment, languages taught, and costs of 1962 short-term language institutes under title VI: Fiscal year 1962—Continued

Institution by State	Language and level [1]	Number of enrollees	Cost
PENNSYLVANIA			
Albright College	German (E & S)	38	$57,739
Bucknell University	French (S), Spanish (S).	40	58,247
Franklin and Marshall College	Russian (S)	39	57,545
Pennsylvania State University.	French (E), Spanish (E).	45	62,809
University of Pittsburgh	French (E & S), Spanish (S).	60	87,409
TENNESSEE			
University of Tennessee	French (E & S), Spanish (E & S).	67	90,138
Vanderbilt University	French (S), German (S).	47	76,655
TEXAS			
Texas Technological College (at Tucumán, Argentina).	Spanish (S) (2d level).	46	77,620
University of Texas	Spanish (E & S)	45	94,704
UTAH			
Utah State University	French (S), Spanish (S).	50	77,281
VIRGINIA			
Hollins College	French (S)	49	$72,555
Virginia State College	French (S), Spanish (S).	50	72,969
WASHINGTON			
University of Washington	German (S)	60	100,150
WEST VIRGINIA			
West Virginia University	French (S), Spanish (S).	60	98,348
WISCONSIN			
University of Wisconsin	German (S), Spanish (S).	56	100,843
PUERTO RICO			
University of Puerto Rico	Spanish (S) (2d level).	51	79,530
Total (80 institutes)	**Elementary: 17** **Secondary: 75**	**4,294**	**[2] 6,490,966**

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[1] (E) Elementary school teachers; (S) Secondary school teachers.

[2] Includes $4,508 in unexpended funds returned by institutions.

Table 44.—Amount of Federal support under title VII for research and dissemination activities in the United States and abroad: Fiscal years 1961 and 1962

Location of project	Amount of Federal support, by fiscal year	
	1961	1962
Total	**$4,730,000**	**$4,753,543**
Alabama	2,875	
Arizona	7,248	24,316
California	645,060	472,928
Colorado	68,804	63,848
District of Columbia	382,850	821,013
Florida	42,844	31,387
Georgia	37,600	18,437
Hawaii		2,000
Illinois	420,332	225,204
Indiana	[illegible],141	213,919
Iowa	7,526	
Kansas	2,490	
Kentucky	1,320	
Maine	2,875	
Massachusetts	264,219	326,856
Michigan	373,137	213,386
Minnesota	148,688	112,817
Missouri		49,964
Nebraska	11,620	124,840
Nevada	2,156	
New Jersey	$60,000	$80,924
New Mexico	11,718	
New York	335,457	937,856
North Carolina	41,311	750
Ohio	104,989	220,097
Oklahoma	63,162	3,000
Oregon	243,784	112,826
Pennsylvania	562,835	528,915
South Carolina		2,875
Texas	408,394	283,543
Utah	33,780	56,026
Washington		109,968
West Virginia	630	
Wisconsin	51,680	5,558
England	18,000	3,199
Japan	21,000	7,091
Puerto Rico	54,475	

Table 45.—Amounts obligated for research projects under title VII, by State and institution: Fiscal years 1961 and 1962

Institution, by State	Project	Amount obligated, by fiscal year	
		1961	1962
ALABAMA			
Partlow State School	Automated programs for teaching arithmetic concepts to mentally retarded children	$2,673	....
ARIZONA			
Arizona State University	Adaptation of measurement procedures to promote the efficiency of self-instruction	....	$21,900
University of Arizona	A test to determine the effectiveness of sound motion pictures in teaching material which cannot be directly portrayed in visual images.	7,268	2,416
CALIFORNIA			
Fontana Unified School District	Use of closed circuit television as a means of improving teacher effectiveness	7,650	....
John Tracy Clinic	Investigation of audiovisual techniques to improve parents' attitudes toward and information about the education of deaf children.	56,679	5,000
San Francisco State College	Experimental appraisal of the effectiveness of pretaped lectures for college extension classes.	2,700	....
	Influence of novelty effect upon programed learning	....	2,639
San Jose State College	Television utilization in the observation program for teacher education	61,136	78,592
	Continued development of a theoretical model for programed learning of languages	....	11,625
Stanford University (cooperatively with the Denver Public Schools).	4 years of research on the context of instructional television	34,000	51,900
Stanford University	Use of sound film recordings in improving classroom communications	92,752	25,000
System Development Corporation	Development and evaluation of self-instructional materials for underachieving and overachieving students.	98,283	....
	Individual tutoring techniques for the development of programing methods and theory	....	76,214
University of California (Berkeley Campus).	Pilot film: "The Thought Model"	11,613	....
University of California (Los Angeles Campus).	Effects of mental retardation on film learning: A study to determine what types of instructional film experiences are meaningful to children with mental retardation regularly enrolled in public schools.	....	785
	Viewing of oneself performing motor skills in motion pictures and its effect upon perception of self in movement.	360	....
	Basic properties of automated teaching systems	85,000	15,000
	A study of cueing on request or on a delayed response in automated instruction	2,401	....
	Automated instruction for effective attainment of proficiency in procedural skills required by professional personnel.	20,000	14,942
University of California (San Francisco Campus)	Experimentation and development of new and more effective techniques and methods for training teachers in and presenting academic subject matter through the special media of television and video tapes in the health sciences.	52,985	44,809
University of Southern California	An investigation of the instructional and administrative efficiency of various observational techniques in an introductory course in education.	2,675	....
	A study of nonlinearity variables in filmic presentation	13,533	....
COLORADO			
Denver Public Schools (cooperatively with Stanford University).	4 years of research on the context of instructional television	68,804	61,348
DISTRICT OF COLUMBIA			
American University	Comparative study of three techniques of student feedback in televised teaching	10,801	....
Gallaudet College	Development of a filmed program for teaching the manual alphabet	....	20,000
FLORIDA			
University of Florida	Effectiveness of photographic media in the modification of children's classroom behavior and self-concepts.	20,000	5,061
University of Miami	Field experiment in the summertime use of open-circuit television instruction to bridge the gap between high school and college.	22,844	....
GEORGIA			
University of Georgia	A study of preservice teacher education in the use of media of mass communication for classroom instruction.	18,860	9,200
	An evaluation of communication media used in the adult liberal studies program	18,740	9,237
HAWAII			
University of Hawaii	Television education in elementary school speech improvement in Hawaii	....	2,000
ILLINOIS			
Loyola University School of Dentistry	Cinematographic method for teaching the concept of dental occlusion and articulation	3,781	....
University of Chicago	Effect on instruction of the complementary use of audiovisual media with modified patterns in the use of the teaching staff.	21,512	....
Southern Illinois University	A study to determine the extent to which instruction for university freshmen in the use of the university library can be turned over to teaching machines.	....	15,019
	A study to explore the effectiveness of color photographs in intrinsically programed automated instructional materials.	....	2,500
	Intrinsic programing of pictorial, audio, and performance frames to maximize transfer to the real life situation.	....	25,000
University of Illinois	Psychological and educational factors in transfer of training—phase I	....	34,024
	Elementary school training program in scientific inquiry	40,252	....
	Development of methods and materials to facilitate foreign language instruction in elementary schools.	45,777	....
	Experimental teaching and instructor training through television and videotape	53,295	27,421
	An investigation of the applicability of motion pictures to educational testing	2,864	....
	Development of methods and materials to facilitate foreign language instruction in elementary schools.	48,095	....
	Comparative studies of principles for programing mathematics in automated instruction.	83,034	98,000
	A comparison of teaching machine procedures with face-to-face procedures in counseling	....	16,000

Table 45.—Amounts obligated for research projects under title VII, by State and institution: Fiscal years 1961 and 1962—Continued

Institution, by State	Project	Amount obligated, by fiscal year	
		1961	1962
INDIANA			
Earlham College	New instruction media: self-instruction, guided instruction, and the role of the teacher.	$58,942	$60,432
	An exploration of nonverbal programing in mathematics and science	....	9,718
Indiana State College	Study of attitudinal changes of teachers and pupils toward educational TV and an analysis of attitudes of various groups toward ETV.	....	6,789
Indiana University	Studies of patterns of influence in the school situation as they affect the use of audiovisual materials.	15,622	13,317
	Improving the quality of teacher performance by use of the video tape recorder	37,512	....
	The comparative effectiveness of two film-utilization techniques on the development of certain problem-solving abilities of high school biology students.	2,063	....
	Construction and evaluation of a self-instructional program in Russian	38,617	19,500
	Exploratory analysis of projection standards (screen size, image size, and image contrast) in terms of their effects on the speed of perception.	2,330	....
	Effect of problem-setting questions on rate and amount of learning in programing teaching machines.	2,600	....
	Improving the programing of complex pictorial materials	2,692	....
	Exploratory investigation of "Sensory Image Types" in foreign language learning	2,352	1,033
	Influence of three teaching machine factors—feedback to programer, participation by learner, and feedback to learner—on the production and utilization of science films.	32,285	....
	Variations in instructional media, processes, content, and aptitude variables in relationship to efficiency of cognitive goal attainment.	....	50,000
Purdue University	Preparation and evaluation in use of a series of brief films of selected demonstrations from the introductory college physics course.	19,184	2,000
	Importance of selected audience and film characteristics as determiners of the effectiveness of instructional films.	2,673	....
	A study of motion pictures in educational and psychological testing	....	50,667
IOWA			
State University of Iowa	A study of means for assessing interest in educational television or film programs and of the relationship between interest in such programs and retention of their contents, and between interest and attitude change toward the general subject matter of the programs.	7,320	....
KANSAS			
Kansas State College of Pittsburg	Retention of subject matter as a function of filmed science courses	2,600	....
KENTUCKY			
Eastern Kentucky State College	Experimental comparison of direct-detailed and directed-discovery methods of presenting tape-recorded instruction.	1,320	....
MAINE			
Portland School Department	Effectiveness of guidance instruction by television in the elementary grades as concerns self-evaluation, satisfying social adjustment, personal problems, and family relationships.	2,673	....
MASSACHUSETTS			
Boston University	An investigation of concept development in elementary school science teaching by television.	66,000	17,524
	A study of retention by elementary school children of science material presented in an integrated program teaching by television; and of stability of interests and attitudes toward science consequent to the presentation of such a teaching program.	12,578	....
Harvard University	An analysis of the behavioral processes involved in self-instruction with "teaching machines".	83,930	130,250
Massachusetts Council for Public Schools	Inservice training of elementary teachers of foreign language by television and tape recordings.	69,692	....
Massachusetts Institute of Technology	Out-of-classroom audience of WGBH-TV: a study of the relationship of motivations in viewing and amount of learning.	29,434	....
Northeastern University	Requirements for graphic teaching machines	....	33,350
Tufts University	Development and validation of selected design criteria for graphic training aids	2,673	....
MICHIGAN			
Detroit Public Schools	Developing magnetic tapes for improving patterns of speech of southern migrants to northern urban areas and determing their effectiveness.	19,000	11,138
Michigan State University	Analysis of methods in which application of new communications media may improve teacher preparation in language, science, and mathematics.	42,416	21,210
	Development of problem-solving ability and learning of relevant-irrelevant information through film and television versions of a strength-of-materials testing laboratory.	20,000	14,947
	Factors affecting the design of effective teaching machine programs	31,000	....
	Effectiveness of special training with audiovisuals in changing aspirations of intellectually superior students.	65,000	31,850
	Elementary school system in relation to teaching and learning methods	....	45,000
National Educational Television and Radio Center.	A study to determine the relative effectiveness of the use of a series of filmed demonstrations in teacher education for a new high school mathematics curriculum.	72,915	442
University of Michigan	Development and evaluation of sound filmstrips for improving teacher-pupil contacts in the classroom.	....	15,180
Wayne State University	A modern language audiovisual project	59,555	61,574
MINNESOTA			
University of Minnesota	Development and evaluation of sound filmstrips for improving teacher-pupil contacts in the classroom.	9,003	1,563
	Effectiveness of closed-circuit television in teacher education	139,683	61,164
	Development and evaluation of recorded programed instruction in creative thinking in the fourth grade.	....	27,750
	A field-experimental study of the functions of ETV for its audiences with special reference to the potential role of children in stimulating family use.	....	22,340

Table 45.—Amounts obligated for research projects under title VII, by State and institution: Fiscal years 1961 and 1962—Continued

Institution, by State	Project	Amount obligated, by fiscal year	
		1961	1962
MISSOURI			
University of Missouri	Impact of media on the school as an institution—phase 1		$33,694
NEBRASKA			
University of Nebraska	Relationship between activity level of the learner and effectiveness of learning	$11,620	3,340
NEVADA			
University of Nevada	Programing a teaching machine course in thinking and problem-solving	2,156	
NEW JERSEY			
Edward R. Johnstone Training and Research Center.	Development and evaluation of a curriculum for educable mental retardates utilizing self-instructional devices or "teaching machines".	60,000	60,924
NEW MEXICO			
New Mexico Highlands University	Improving language arts of bilinguals through audiovisual means	11,718	
NEW YORK			
Hunter College	Use of television for improving teacher training and for improving measures of student-teaching performance.	78,485	21,735
	Kinescopic recordings as situational tests and laboratory exercises in empathy for the training of counselors.		25,000
New York State Education Department	New media for improvement of mathematics and science instruction	50,705	
New York University College of Dentistry.	Experimental study utilizing closed-circuit television in the teaching of dental techniques.	70,000	5,140
Queens College	Development and evaluation of perceptual materials for an individualized approach in ninth-grade algebra.	13,795	7,750
Rensselaer Polytechnic Institute	Development of animated films to facilitate creative space perception	18,863	
	Study of characteristics contributing to the effectiveness of visual demonstrations		27,000
Syracuse University	Improving the quality of education by identifying effective television teachers		27,500
University of Rochester	An investigation of the development of abstract thinking in children via the medium of self-instructional programing.		2,875
NORTH CAROLINA			
University of North Carolina	A study to determine specific sources of resistance to the use of audiovisual materials by college and university teachers and the development of procedures for overcoming the barriers to optimum use.	41,311	
OHIO			
Miami University	A study of the instructional gestalt operative in university courses presented by television.	66,141	60,000
Ohio State University Research Foundation.	Experimental development of a mobile laboratory of new media of instruction for use in the inservice education of teachers of science and mathematics.	26,671	
	Perception and television: a study of the physiological factors of television viewing		37,500
	A study to evaluate two methods using magnetic tape recordings for the self-instructional presentation of elemental materials of music.		21,000
Ohio University	Mode of student responding to linear and branching sequences in conventional and programed televised instruction.		32,820
University of Akron	Production and use of classrooms on film versus traditional observations in teacher education.	6,100	
OKLAHOMA			
Oklahoma State Board of Education	A study of the supplementation of a televised high school course in physics or chemistry by correspondence courses and student teachers.	2,125	
University of Oklahoma	A study of the relative effectiveness of selected approaches to the inservice education of teachers in the utilization of inschool radio and television broadcasts.	28,532	
	Selected vicarious experiences versus direct observational experiences of preservice teachers in the foundation areas of professional preparation at the University of Oklahoma.	32,505	3,000
OREGON			
Oregon College of Education	A study of the effectiveness of audiovisual teaching materials when prepared according to the principles of motivational research.	29,007	
Oregon State Department of Education	A research project to identify the need for and feasibility of regional educational media research centers with a regional research improvement orientation.		25,000
Oregon State System of Higher Education (Corvallis).	An experiment in the use of educational broadcasting to meet the growing needs of the junior college program for Oregon youth.	77,750	
Oregon State System of Higher Education (Monmouth).	Group vs. individual pacing in programed instruction		2,875
	The classroom simulator: a new dimension in teacher education		15,383
	Directed discovery vs. programed instruction: a test of a theoretical position involving educational technology.		9,049
Portland State College	Assessment of some newly designed educational media for the self-teaching of young children in school and at home.	72,459	
University of Oregon	A study of resistance to television for educational purposes: its nature, purpose, and control.	56,021	59,569

Table 45.—Amounts obligated for research projects under title VII, by State and institution: Fiscal years 1961 and 1962—Continued

Institution, by State	Project	Amount obligated, by fiscal year	
		1961	1962
PENNSYLVANIA			
American Institute for Research	Increased learning from television courses by use of integrated self-scoring instructional quiz materials and "practice machines."	$9,947	....
	Development and evaluation of procedures for using self-instructional media to develop student capability for independent thinking and judgment.	....	$5,175
	Adjusting teaching machine programs to differences in the learning needs and capabilities of individual students.	....	16,266
	The role of teaching machine programs in an optimum system for achieving educational objectives.	65,000	22,712
	Research in degree of student control over programed instruction: initial and cumulative effects of self-direction and self-evaluation of progress.	....	66,053
Bucknell University	Programed teaching materials in mathematics for superior students in rural high schools	....	20,000
	Motivational aspects of automated instruction	40,000	37,458
Drexel Institute of Technology	Magnetic recordings and visual displays as aids in teaching introductory psychology to college students.	10,571	....
Easton Area Joint High School System	An experimental project to measure certain facets of language growth for high school students in beginning French when variations of language laboratory equipment are utilized in the instructional process.	19,973	....
Metropolitan Pittsburgh Educational Television Stations.	Instructional techniques for improving student understanding of principles illustrated in televised science demonstrations.	126,032	....
	Evaluation of procedures for "Individualizing" group instruction by television	....	104,564
Pennsylvania State University	A research project to develop operational plans for regional educational media research centers with a programmatic orientation.	....	25,000
	An experimental study of patterns for improving the preparation of preservice teachers in the use of audiovisual materials and the effects of optimal use of audiovisual materials upon pupil learning and teacher use.	35,000	49,863
	Measurement of the effectiveness of documentary sound film as a supplement in the teaching of methods to students preparing to teach in secondary schools.	40,000	28,003
	An investigation of the improvement of informational filmstrips and the derivation of principles relating to the effectiveness of these media.	13,000	....
	An investigation of the improvement of informational motion pictures and the derivation of principles relating to the effectiveness of these media.	16,000	....
	Research to discover methods of applying and testing teaching machine principles of programing basic college courses in mathematics and English composition for presentation over closed-circuit television.	106,500	53,293
	An investigation of principles of programing size of learning steps as applied to the production and utilization of filmstrips and filmstrip-type materials in natural science.	16,856	13,800
State Department of Public Instruction	Administrative and instructional adjustments resulting from the use of programed materials.	....	13,710
University of Pennsylvania	A study of determinants of audience formation and reactions to open-circuit television college-credit courses.	46,000	39,569
University of Pittsburgh	Development and evaluation of programed instruction in language for children with auditory impairments.	11,843	....
	Assessment of a self-teaching technique based on a combination of programed instruction and the case study method.	....	2,873
	Programed instruction as a device for the correction of written language in adolescent deaf students.	....	18,009
SOUTH CAROLINA			
Bob Jones University	Knowledge of results and continuity of various techniques in presenting a filmstrip as factors in immediate learning and retention.	....	2,875
TEXAS			
Baylor Medical College	Teaching human physiology via a multi-channel data broadcast system	20,000	19,800
University of Houston	An experiment with the use of a video tape recorder in a program designed to improve college-level teaching techniques.	6,423	3,940
	Automated instruction of remedial English	26,000	23,644
University of Texas	A study of the effectiveness of television as a method of inservice education for elementary mathematics teachers.	44,509	....
UTAH			
University of Utah	Challenging the superior student by making the study of Russian available in the elementary school curriculum via television.	33,780	38,070
	Distribution of visual aids on a university campus via low-power ultra-high-frequency television.	....	17,956
WEST VIRGINIA			
State Department of Education	Use of motivational films to change favorably the attitudes of high school students toward science and scientists.	630	....

Table 46.—Dissemination activities under title VII in the United States and abroad, by institution: Amounts obligated for fiscal years 1961 and 1962

Institution, by State	Project	Amount obligated by fiscal year	
		1961	1962
CALIFORNIA			
Alameda County State College	Three seminars to prepare content and pattern guidelines for the professional training of educational media specialists.	....	$33,543
William H. Allen	Analysis of the research being conducted under part A of title VII of the National Defense Education Act.	$960	....
San Jose State College	National workshop on educational media demonstrations	24,837	4,140
Stanford University	Educational television: the next 10 years	40,077	....
Station KQED-TV	A survey of the potential of educational television in Hawaii	5,000	6,155
System Development Corporation	Review and assessment of the title VII, NDEA program	....	6,173
University of Southern California	New educational media (including audiovisual education) in State departments of education.	50,000	94,961
COLORADO			
Western Interstate Commission on Higher Education.	A conference on educational television for leaders of education and State government in the States of Idaho, Montana, Oregon, and Washington.	....	2,500
DISTRICT OF COLUMBIA			
American Association of Colleges for Teacher Education.	National conference on teacher education and new media	33,272	....
American Council on Education	A study of the problems of copyrights, royalties, compensation, and rights of teachers in the production, performance, and distribution of educational television and radio programs, educational films, and programs for teaching machines.	....	68,119
American Educational Research Association.	Study, formulation, and dissemination of technical information on auto-instructional programs, devices, and research.	33,128	....
	Identification of needed research on the relationship of newer educational media to fundamental problems of teaching and learning.	....	9,015
American Personnel and Guidance Association.	National conference on guidance and the utilization of new media	....	39,790
American University	A directory of college courses in radio and television	4,500	....
Bureau of Social Science Research	Audiovisual materials in public schools and factors influencing their use	60,000	44,012
John W. Connelly, Jr.	A bibliographic research study of the legal authorities (statutes, regulations, etc.) in each of the 50 States which affect or may affect, positively or negatively, the classroom use in public elementary and secondary schools of the new educational media.	....	28,674
Electronic Industries Association	A technical guide for the purchase and use of language laboratory facilities and equipment.	11,000	....
Gallaudet College	A survey of visual aid programs in residential and day schools and classes for the deaf in the United States.	7,590	....
Library of Congress	Preparation and publication of "U.S. Government Films for Public Educational Use, 1960-61."	28,072	....
National Association of Educational Broadcasters.	A survey of the needs of education for television allocations	35,000	31,175
	A survey of professional personnel available in the field of educational communication and an analysis of trends and recommendations for future training and personnel practices.	....	47,694
	A determination and evaluation of a nationwide assignment of television channels to meet the needs of education, using electronic digital computer methods.	....	35,258
National Cultural Center	A study of the role and function of the new educational media in the permanent program of the National Cultural Center, with special reference to potential services for schools and institutions of higher education.	....	27,969
National Education Association	A fourth pilot regional leadership conference to explore ways and means of disseminating information concerning new educational media (Billings, Mont.).	17,940	....
	Fifth regional leadership conference to explore ways and means of disseminating information concerning new educational media (Durham, N. H.).	14,484	....
	Sixth regional leadership conference to explore ways and means of disseminating information concerning new educational media (Washington, D.C.).	18,920	2,530
	Seventh regional leadership conference to explore ways and means of disseminating information concerning new educational media (Madison, Wis.).	16,700	....
	Title VII research abstracting project	8,000	10,700
	A study of the impact of present and predicted technological developments on education.	3,723	....
	Technological developments and the teaching profession (with particular reference to the new educational media).	76,750	101,135
	A planning conference to develop recommendations for educational media dissemination activities.	2,970	....
FLORIDA			
Florida State Department of Education	An educational media demonstration-workshop for faculty members of teacher-training institutions.	....	21,326
University of Miami	A study of audience response systems in teaching	....	5,000
ILLINOIS			
American Library Association	Preparation, publication, and distribution of "Guides to Newer Educational Media, 1950-60".	3,225	....
National Association of Educational Broadcasters.	Study of the feasibility of developing demonstration materials of classroom utilization of educational broadcasts.	6,371	....
North Central Association of Colleges and Secondary Schools.	Dissemination conferences on the principles and practices in the uses of educational television.	45,000	....
University of Illinois	Two films to demonstrate the use of film techniques in teacher education	35,000	7,240
	Identification and role of the school libraries which function as instructional materials centers with implications for training.	32,126	....

Table 46.—Dissemination activities under title VII in the United States and abroad, by institution: Amounts obligated for fiscal years 1961 and 1962—Continued

Institution, by State	Project	Amount obligated, by fiscal year	
		1961	1962
INDIANA			
Indiana University	Conference on implementing a system for national bibliographic control of the newer educational media.	$14,706	....
	Project to identify and describe present organizational patterns, practices, equipment, and facilities utilized in preparation of visual materials for public school instruction and an exploration of application of recent technology to this area.	25,274	....
North Central Association of Colleges and Secondary Schools.	Pilot conference on the dissemination of principles and practices in the uses of television in education.	6,700	....
Purdue University	Inventory and review of U.S. and international experience in instructional television in conjunction with the Purdue 1961 International Seminar on Instructional Television.	13,300	$30,000
MASSACHUSETTS			
Brandeis University	A national conference on economics of and standards in educational television	....	41,028
Eastern Educational Network	A pilot northeastern regional instructional television library	....	59,570
WGBH Educational Foundation	A demonstration of the use of FM radio networking to facilitate the conference technique of communication among institutions of higher education.	....	30,123
MICHIGAN			
Educational Media Council, Inc	National directory service for new educational media materials	17,862	....
	Five publications for the dissemination of information about the new educational media	3,807	....
Michigan State University	A regional work conference to develop a theoretical framework for new media research and application.	24,840	....
	A conference of the Educational Media Council	4,197	....
National Educational Television and Radio Center.	Planning and production of filmed reports of teaching practices in the use of new media for instructional purposes in the field of modern foreign languages, mathematics, and general science.	10,545	11,045
Charles F. Schuller	A survey of the audiovisual instructional programs, resources, and services of educational institutions in the State of Hawaii.	1,000	....
University Microfilms, Inc	Microfilm storage and dissemination of title VII research reports	1,000	1,000
MISSOURI			
Stephens College	Planning of educational media for a new learning center and preparation of a report suitable for national distribution.	....	16,270
NEBRASKA			
University of Nebraska	Work-study conference on new media as applicable to university extension division activities.	....	8,300
	Pilot Great Plains regional instructional television library	....	113,200
NEW YORK			
Center for Programed Instruction	Programed instruction and teaching machines: a national exhibition	....	36,127
	Annotated bibliography of programed materials and their usage	....	10,915
Educational Media Council	Series of study projects to assist in the development of national guidelines in the educational media field.	....	70,700
	Pilot national directory and subdirectories for new educational media materials	....	428,290
	Preparation of two manuscripts of publications for the dissemination of information about the new educational media.	....	3,673
Institute for Advancement of Medical Communication.	Use of television for education in medicine and dentistry	40,000	5,943
National Educational Television and Radio Center.	Study of the audiences of programs broadcast over six educational television stations	57,000	2,892
	National instructional television library demonstration	....	261,504
Syracuse University	Instructional materials for teaching audiovisual courses	6,609	750
NORTH CAROLINA			
O. L. Davis	Carefully documented study of the impact of the Office of Education regional leadership conferences on the encouragement of more effective use of the new media in the various participating states.	....	750
OHIO			
Ohio State University	Series of motion picture documents on communications theory and the new educational media.	....	6,000
Western Reserve University	Information service of educational media research materials	8,077	22,000
	Preparation of a complete and exhaustive file of research abstracts in the educational media field.	....	40,777
OREGON			
Portland State College	Guide for planning schools for the use of modern teaching aids	8,547	....
Henry Ruark	Study of the policy statements relative to responsibilities of State departments of education in various areas of school administration, curriculum, instruction, libraries, etc.	....	750
PENNSYLVANIA			
Pennsylvania State University	Regional research conference on new educational media	4,354	....
	Bibliography of human communication with special reference to the new educational media.	1,667	....
University of Pittsburgh	Pilot short-term workshops for training college teachers in the effective use of a new method of instruction in English composition utilizing overhead projection.	....	12,839
PUERTO RICO			
University of Puerto Rico	Demonstration of the use of television to broaden the education of teachers in service	54,475	....

Table 46.—Dissemination activities under title VII in the United States and abroad, by institution: Amounts obligated for fiscal years 1961 and 1962—Continued

Institution, by State	Project	Amount obligated, by fiscal year	
		1961	1962
TEXAS			
Texas Education Agency	Demonstration of the dissemination of information on new educational media by teacher demonstration teams.	$30,000	$19,500
	Demonstration of the dissemination of information on new educational media by teacher demonstration teams.	....	124,459
University of Texas	Field study in the wider use, by means of microwave television, of faculty resources among a number of institutions of higher education.	266,885	89,924
	National conference on application of newer communication media in correspondence study.	14,575	2,186
WASHINGTON			
University of Washington	Recruitment and training of staff and support of staff dissemination activities at Library XXI exhibit, Seattle World's Fair.	....	109,908
WISCONSIN			
University of Wisconsin	Demonstration of inservice teacher training in audiovisual education via television and related means.	51,680	....
	Preparation of a guide to the preparation of teachers to evaluate the use of educational media.	....	5,556
ENGLAND			
National Committee for Visual Aids in Education.	Survey of educational media research in Europe	18,000	8,199
JAPAN			
International Christian University	Survey of educational media research and experimentation in Asia and the Far East	21,000	7,091

Table 47.—Enrollment in area vocational education programs under title VIII, by State, level of program, and sex: Fiscal year 1961

State or territory	Grand total			Preparatory programs				Extension programs	
				Secondary		Post secondary			
	Total	Male	Female	Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8	9	10
Total	122,952	118,292	4,660	11,619	139	77,112	334	29,561	4,187
Alabama	1,509	1,503	6	14		307		1,182	6
Alaska	33	32	1					32	1
Arizona	1,432	1,347	85	73	1	178	1	1,096	83
Arkansas	606	602	4	7		223	2	372	2
California	36,795	34,117	2,678	62	3	7,944	183	26,111	2,492
Colorado	1,137	1,123	14			511	7	612	7
Connecticut	8,328	8,267	61	1,367	8	236		6,664	53
Delaware	407	397	10	69	4			328	6
District of Columbia	324	321	3	119	1			202	2
Florida	4,014	3,888	126	268	1	1,018	11	2,602	114
Georgia	986	986				565		421	
Hawaii	295	295		63				232	
Idaho	473	472	1			250		222	1
Illinois	981	975	6	33		657	5	285	1
Indiana	1,693	1,685	8	98	1	13	2	1,574	5
Iowa	1,134	1,131	3	286	2	105		740	1
Kansas	1,054	975	79	121		90	6	764	73
Kentucky	452	452		74		205		173	
Louisiana	2,354	2,341	13	176	2	766	6	1,399	5
Maine	184	184				49		135	
Maryland	548	546	2	340	2	206			
Massachusetts	1,209	1,209		399		202		608	
Michigan	5,336	5,310	26	364		2,212		2,734	26
Minnesota	4,125	3,913	212	23		469		3,421	212
Mississippi	1,883	1,883		401		22		1,460	
Missouri	1,397	1,261	136	218		11		1,032	136
Montana	223	223		70		47		106	
Nebraska	456	456		33		370		53	
Nevada	1,235	1,196	39	189	1	36	1	971	37
New Hampshire	735	735				171		564	
New Jersey	4,325	4,275	50	993	5	257	3	3,025	42
New Mexico	318	318		16		60		242	
New York	2,638	2,625	13	2,434	13	58		133	
North Carolina	1,613	1,539	74	205	2	712	27	622	45
North Dakota	198	196	2			196	2		
Ohio	395	387	8	109		278	8		
Oklahoma	1,778	1,717	61	328	48	973	3	416	10
Oregon	818	813	5			633	5	180	
Pennsylvania	5,439	5,320	119	1,954	60			3,366	59
Rhode Island	376	376						376	
South Carolina	185	185		108		77			
Tennessee	591	570	21	220	4	177	16	173	1
Texas	7,029	6,879	150	146	1	1,533	2	5,200	147
Utah	504	503	1			287	1	216	
Vermont	386	381	5	79		98	1	204	4
Virginia	701	697	4			653	4	44	
Washington	9,992	9,383	609	52		951	1	8,380	608
West Virginia	198	198		78		15		105	
Wisconsin	3,880	3,855	25			3,200	17	655	8
Wyoming	14	14				14			
Puerto Rico	236	236				127		109	

Table 48.—Enrollment in technical education programs under title VIII, by State, level of program, and sex: Fiscal year 1962

State or territory	Grand total			Preparatory programs				Extension programs	
				Secondary		Post secondary			
	Total	Male	Female	Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8	9	10
Total	**148,020**	**142,100**	**5,920**	**12,732**	**296**	**38,984**	**1,059**	**90,384**	**4,465**
Alabama	892	892	-------	90	-------	295	-------	507	-------
Alaska	7	7	-------	-------	-------	-------	-------	7	-------
Arizona	2,016	1,871	145	61	-------	244	12	1,566	133
Arkansas	792	792	-------	9	-------	216	-------	567	-------
California	50,153	46,030	4,123	374	11	12,132	725	33,524	3,387
Colorado	1,615	1,604	11	-------	-------	741	5	863	6
Connecticut	4,412	4,340	72	477	17	1,298	6	2,565	49
Delaware	511	509	2	118	-------	-------	-------	391	2
District of Columbia	263	263	-------	87	-------	176	-------	-------	-------
Florida	7,919	7,727	192	650	11	3,123	4	3,954	177
Georgia	1,487	1,481	6	-------	-------	876	4	605	2
Hawaii	94	94	-------	85	-------	-------	-------	9	-------
Idaho	519	519	-------	-------	-------	320	-------	199	-------
Illinois	1,428	1,353	75	83	-------	728	16	542	59
Indiana	1,340	1,324	16	67	-------	31	1	1,226	15
Iowa	1,291	1,289	2	285	1	176	-------	828	1
Kansas	1,869	1,738	131	151	-------	300	5	1,287	126
Kentucky	577	577	-------	92	-------	188	-------	297	-------
Louisiana	3,094	3,069	25	477	4	1,252	10	1,340	11
Maine	144	131	13	-------	-------	-------	-------	131	13
Maryland	1,118	1,118	-------	605	-------	299	-------	214	-------
Massachusetts	1,400	1,400	-------	355	-------	241	-------	804	-------
Michigan	5,694	5,686	8	350	-------	1,889	-------	3,447	8
Minnesota	4,827	4,677	150	38	-------	548	-------	4,091	150
Mississippi	2,280	2,279	1	182	-------	258	-------	1,839	1
Missouri	1,498	1,349	149	285	2	58	-------	1,006	147
Montana	416	416	-------	92	-------	68	-------	256	-------
Nebraska	454	454	-------	39	-------	404	-------	11	-------
Nevada	1,403	1,322	81	222	6	216	21	884	54
New Hampshire	682	671	11	-------	-------	170	-------	501	11
New Jersey	5,469	5,424	45	855	4	227	1	4,342	40
New Mexico	399	399	-------	14	-------	108	-------	277	-------
New York	3,336	3,306	30	3,086	30	52	-------	168	-------
North Carolina	1,961	1,861	100	123	-------	1,212	86	526	14
North Dakota	455	453	2	-------	-------	453	2	-------	-------
Ohio	692	689	3	282	-------	407	3	-------	-------
Oklahoma	2,004	1,941	63	295	33	1,130	8	516	22
Oregon	1,019	986	33	-------	-------	879	33	107	-------
Pennsylvania	5,903	5,792	111	2,066	57	-------	-------	3,726	54
Rhode Island	248	248	-------	-------	-------	-------	-------	248	-------
South Carolina	210	209	1	126	1	83	-------	-------	-------
Tennessee	1,307	1,235	72	315	36	237	20	683	16
Texas	8,200	7,911	289	107	82	2,043	-------	5,761	207
Utah	694	645	49	-------	-------	544	49	101	-------
Vermont	313	313	-------	66	-------	130	-------	117	-------
Virginia	724	721	3	14	-------	669	3	38	-------
Washington	11,306	10,541	765	26	-------	1,205	18	9,310	747
West Virginia	156	155	1	83	1	-------	-------	72	-------
Wisconsin	4,035	3,995	40	-------	-------	3,169	27	826	13
Wyoming	15	15	-------	-------	-------	15	-------	-------	-------
Puerto Rico	279	279	-------	-------	-------	174	-------	105	-------

Table 49.—Source of funds for area vocational education programs under title VIII, by State: Fiscal year 1961

State or Territory	Total	Federal	State and local		
			Total	State	Local
1	2	3	4	5	6
Total	$18,406,045.93	$7,913,197.10	$10,492,848.83	$4,148,321.12	$6,344,527.71
Alabama	266,965.58	133,254.27	133,711.31	57,804.03	75,907.28
Alaska	6,215.53	3,107.76	3,107.77	850.27	2,257.50
Arizona	99,755.81	49,877.89	49,877.92	506.76	49,371.16
Arkansas	125,772.19	50,530.79	75,241.40	73,029.40	2,212.00
California	2,476,734.79	680,029.24	1,796,705.55	0.00	1,796,705.55
Colorado	216,709.72	88,426.20	128,283.52	48,372.09	79,911.43
Connecticut	590,655.36	128,396.72	462,258.64	462,258.64	0.00
Delaware	116,667.60	52,435.00	64,232.60	13,561.65	50,670.95
District of Columbia	68,194.10	34,094.00	34,100.10	34,100.10	0.00
Florida	583,715.65	220,977.96	362,737.69	326,709.23	36,028.46
Georgia	603,514.66	282,025.00	321,489.66	320,721.16	768.50
Hawaii	46,851.01	21,839.00	25,012.01	25,012.01	0.00
Idaho	163,699.49	73,636.58	90,062.91	87,679.48	2,383.43
Illinois	353,901.08	176,919.88	176,981.20	9,064.22	167,916.98
Indiana	155,795.00	77,002.00	78,793.00	4,377.00	74,416.00
Iowa	193,894.93	96,793.54	97,101.39	4,782.11	92,319.28
Kansas	94,909.03	46,111.52	48,797.51	0.00	48,797.51
Kentucky	344,583.92	171,291.96	173,291.96	173,291.96	0.00
Louisiana	600,233.46	295,555.81	304,677.65	12,201.31	292,476.34
Maine	26,558.87	12,001.17	14,557.70	13,998.20	559.50
Maryland	226,108.60	113,054.09	113,054.51	7,160.47	105,894.04
Massachusetts	398,146.06	157,018.46	241,127.60	123,231.60	117,896.00
Michigan	971,015.02	471,123.00	499,892.02	0.00	499,892.02
Minnesota	471,999.62	235,998.62	236,001.00	32,611.00	203,390.00
Mississippi	197,731.02	98,865.51	98,865.51	[illegible]	95,394.46
Missouri	227,153.14	113,006.55	114,146.59	63,857.14	50,289.45
Montana	53,949.74	24,908.35	29,041.39	17,256.66	11,784.73
Nebraska	231,612.03	115,806.01	115,806.02	2,203.20	113,602.82
Nevada	121,265.08	56,093.00	65,172.08	63,552.87	1,619.21
New Hampshire	126,136.91	54,430.04	71,706.87	71,706.87	0.00
New Jersey	555,082.13	182,706.21	372,375.92	90,921.39	281,454.53
New Mexico	84,770.19	39,964.67	44,805.52	25,875.18	18,930.34
New York	1,380,179.63	686,254.00	693,925.63	280,813.09	413,112.54
North Carolina	1,205,002.16	586,339.37	618,662.79	598,871.07	19,791.72
North Dakota	121,809.84	60,904.92	60,904.92	60,904.92	0.00
Ohio	492,128.45	239,450.25	252,678.20	213,469.52	39,208.68
Oklahoma	589,455.50	220,106.57	369,348.93	25,285.39	344,063.54
Oregon	235,966.45	92,241.00	143,725.45	106,299.55	37,425.90
Pennsylvania	734,942.43	345,114.55	389,827.88	0.00	389,827.88
Rhode Island	6,941.61	2,801.61	4,140.00	4,140.00	0.00
South Carolina	116,181.74	58,090.87	58,090.87	34,703.94	23,386.93
South Dakota	38.30	0.00	38.30	38.30	0.00
Tennessee	391,528.40	195,389.00	196,139.40	196,139.40	0.00
Texas	371,898.16	185,949.08	185,949.08	92,974.54	92,974.54
Utah	149,669.87	47,093.00	102,576.87	2,810.49	99,766.38
Vermont	87,598.52	41,029.42	46,569.10	0.00	46,569.10
Virginia	352,943.23	160,415.14	192,528.09	68,325.54	124,202.55
Washington	518,618.39	208,893.20	309,725.19	74,059.47	235,665.72
West Virginia	73,329.48	36,605.47	36,724.01	12,576.18	24,147.83
Wisconsin	545,656.01	272,439.00	273,217.01	92,729.89	180,487.12
Wyoming	5,405.71	2,563.29	2,842.42	2,024.63	817.79
Puerto Rico	224,434.73	112,216.56	112,218.17	112,218.17	0.00

Table 50.—Source of funds for technical education programs under title VIII, by State: Fiscal year 1962

State or Territory	Total	Federal	State and local		
			Total	State	Local
1	2	3	4	5	6
Total	**$24,608,898.76**	**$11,045,347.25**	**$13,563,551.51**	**$5,457,757.43**	**$8,105,794.0**
Alabama	218,438.51	95,704.21	122,734.30	68,270.64	54,463.66
Alaska	11,057.29	5,528.63	5,528.66	135.00	5,393.66
Arizona	126,744.40	63,372.16	63,372.24	3,058.14	60,314.10
Arkansas	104,293.19	51,637.91	52,655.28	51,699.38	955.90
California	3,410,515.63	1,267,392.00	2,143,123.63	0.00	2,143,123.63
Colorado	375,911.90	157,200.69	218,711.21	50,610.41	168,100.80
Connecticut	903,293.98	379,137.00	524,156.98	524,156.98	0.00
Delaware	121,044.36	60,258.71	60,785.65	23,515.25	37,270.40
District of Columbia	67,637.90	33,816.32	33,821.58	33,821.58	0.00
Florida	1,057,842.87	372,584.33	685,258.54	549,829.24	135,429.30
Georgia	879,555.93	422,422.00	457,133.93	455,697.08	1,436.85
Hawaii	38,477.61	19,238.80	19,238.81	19,238.81	0.00
Idaho	208,789.99	102,300.00	106,489.99	103,099.62	3,390.37
Illinois	471,992.65	235,950.79	236,041.86	9,065.42	226,976.44
Indiana	85,345.00	35,423.00	49,922.00	0.00	49,922.00
Iowa	366,815.90	183,132.22	183,683.68	129,305.72	54,377.96
Kansas	169,374.07	82,303.21	87,070.86	5,460.54	81,610.32
Kentucky	247,460.28	123,437.82	124,022.46	124,022.46	0.00
Louisiana	1,226,869.05	581,276.04	645,593.01	0.00	645,593.01
Maine	26,558.87	12,001.17	14,557.70	13,998.20	559.50
Maryland	280,353.08	140,176.48	140,176.60	3,918.04	136,258.56
Massachusetts	491,527.10	179,844.14	311,682.96	148,315.96	163,367.00
Michigan	870,484.25	428,920.69	441,563.56	0.00	441,563.56
Minnesota	477,073.54	238,535.72	238,537.82	32,137.64	206,400.18
Mississippi	243,817.59	121,873.89	121,943.70	3,628.59	118,315.11
Missouri	257,277.55	128,500.00	128,777.55	23,682.90	105,094.65
Montana	43,167.43	19,979.60	23,187.83	11,843.04	11,344.79
Nebraska	282,411.16	141,205.58	141,205.58	2,320.94	138,884.64
Nevada	146,313.26	68,472.00	77,841.26	66,163.18	11,678.08
New Hampshire	175,954.36	83,236.00	92,718.36	92,718.36	0.00
New Jersey	708,746.49	270,873.00	437,873.49	145,628.41	292,245.08
New Mexico	109,583.36	52,646.03	56,937.33	22,888.63	34,048.70
New York	1,696,977.64	777,884.00	919,093.64	371,357.93	547,735.71
North Carolina	1,955,274.84	967,429.59	987,845.25	967,429.59	20,415.66
North Dakota	222,245.29	65,072.79	157,172.50	157,172.50	0.00
Ohio	576,687.41	275,000.00	301,687.41	241,040.75	60,646.66
Oklahoma	901,814.02	380,513.60	521,300.42	14,117.22	507,183.20
Oregon	310,311.84	139,309.00	171,002.84	125,715.51	45,287.33
Pennsylvania	833,692.95	375,355.59	458,337.36	0.00	458,337.36
Rhode Island	17,684.21	5,606.21	12,078.00	11,446.00	632.00
South Carolina	528,507.25	264,253.62	264,253.63	43,257.09	220,996.54
Tennessee	431,341.78	215,109.88	216,231.90	216,231.90	0.00
Texas	503,243.80	251,621.90	251,621.90	125,810.95	125,810.95
Utah	187,255.35	58,472.00	128,783.35	0.00	128,783.35
Vermont	91,134.33	42,414.81	48,719.52	37,851.35	10,868.17
Virginia	382,450.18	191,192.91	191,257.27	76,535.48	114,721.79
Washington	788,852.00	394,426.00	394,426.00	122,858.43	271,567.57
West Virginia	89,494.83	44,703.97	44,790.86	8,062.92	36,727.94
Wisconsin	660,367.64	330,183.82	330,183.82	108,360.59	221,823.23
Wyoming	13,917.30	6,958.65	6,958.65	820.28	6,138.37
Puerto Rico	222,917.55	111,458.77	111,458.78	111,458.78	0.0

Table 51.—Expenditures [1] for improvement and expansion of State statistical services under title X: Fiscal years 1961 and 1962

State or territory [2]	Fiscal year 1961				Fiscal year 1962			
	Total expenditure	Federal share of expenditure [3]	State share of expenditure	Federal funds requested	Total expenditure	Federal share of expenditure [3]	State share of expenditure	Federal funds requested
1	2	3	4	5	6	7	8	9
Total	**$2,541,520**	**$1,099,657**	**$1,441,863**	**$1,299,806**	**$2,992,486**	**$1,284,749**	**$1,707,738**	**$1,482,452**
Alabama	----------	----------	----------	----------	----------	----------	----------	2,260
Alaska	27,864	13,931	13,933	13,950	30,459	15,217	15,243	19,000
Arkansas	14,381	7,191	7,191	11,100	23,678	11,839	11,839	12,750
California	72,234	36,117	36,117	50,000	75,725	37,862	37,862	50,000
Colorado	97,851	48,925	48,925	50,000	106,669	50,000	56,669	50,000
Connecticut	25,935	12,968	12,968	14,777	32,160	16,080	16,080	18,066
Delaware	----------	----------	----------	42,500	----------	----------	----------	----------
Florida	306,005	50,000	256,005	50,000	329,541	50,000	279,541	50,000
Georgia	100,000	50,000	50,000	50,000	101,588	50,000	51,588	50,000
Hawaii	91,221	45,610	45,610	44,533	124,497	50,000	74,497	50,000
Idaho	4,579	2,290	2,289	2,500	13,588	6,794	6,794	7,720
Illinois	122,873	50,000	72,873	50,000	127,812	50,000	77,812	50,000
Indiana	----------	----------	----------	----------	----------	----------	----------	25,000
Iowa	97,716	48,858	48,858	50,000	102,840	50,000	52,840	50,000
Kansas	41,048	20,524	20,524	22,325	51,708	20,453	31,255	27,728
Kentucky	60,908	30,454	30,454	30,454	89,289	44,361	44,928	44,928
Maine	36,071	18,035	18,035	20,130	68,815	34,408	34,408	41,000
Maryland	11,685	5,842	5,843	9,450	21,941	10,970	10,971	11,250
Massachusetts	84,505	42,253	42,253	50,000	86,089	43,045	43,045	50,000
Minnesota	38,098	19,049	19,049	20,000	35,962	17,981	17,981	20,000
Mississippi	48,959	24,479	24,479	26,000	47,531	23,766	23,766	27,500
Missouri	14,717	7,359	7,359	10,250	16,215	8,108	8,108	12,400
Montana	53,923	25,354	28,569	29,900	92,261	43,984	48,277	44,000
Nebraska	18,007	9,003	9,003	10,075	24,022	12,011	12,011	13,845
New Hampshire	24,807	12,403	12,403	12,547	21,820	9,373	12,447	9,790
New Jersey	51,397	25,699	25,699	28,202	59,177	29,589	29,589	30,510
New Mexico	61,431	30,715	30,715	38,053	77,928	38,964	38,964	43,014
New York	127,983	50,000	77,983	50,000	154,053	50,000	104,053	50,000
North Carolina	8,736	4,368	4,368	6,212	27,844	13,922	13,922	22,697
North Dakota	12,758	6,379	6,379	6,705	10,223	4,900	5,323	4,900
Ohio	112,355	43,734	68,601	50,000	113,427	49,980	63,447	50,000
Oklahoma	126,778	50,000	76,778	50,000	116,647	49,973	66,675	50,000
Oregon	25,435	12,718	12,718	20,386	41,926	20,963	20,963	30,233
Pennsylvania	51,906	25,953	25,953	50,000	70,298	35,149	35,149	50,000
Rhode Island	84,891	40,091	44,800	43,525	119,337	50,000	69,337	50,000
South Carolina	58,311	24,550	33,761	27,500	61,874	30,937	30,937	35,405
South Dakota	24,282	11,911	12,371	14,403	28,129	13,996	14,133	18,223
Tennessee	73,431	36,716	36,716	50,000	87,042	43,521	43,521	47,500
Texas	106,670	50,000	56,670	50,000	111,350	50,000	61,350	50,000
Utah	14,533	7,266	7,266	7,885	15,855	7,928	7,928	9,461
Vermont	12,419	6,209	6,210	11,605	10,672	5,336	5,336	7,568
Washington	1,179	589	589	1,650	97,694	48,847	48,847	50,000
West Virginia	18,574	9,283	9,291	10,000	68,800	34,400	34,400	50,000
Wisconsin	26,445	13,223	13,223	21,546	61,672	30,836	30,836	32,849
Wyoming	22,447	11,224	11,224	25,000	----------	----------	----------	----------
Guam	27,878	13,939	13,939	13,279	45,366	22,683	22,683	17,397
Puerto Rico	70,304	30,430	39,874	39,525	77,432	32,460	44,972	32,460
Virgin Islands	27,993	13,996	13,996	13,750	28,179	14,089	14,089	13,000

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[1] Because of rounding, detail may not add to total.

[2] The following States did not participate financially: Alabama, Arizona, District of Columbia, Louisiana, Michigan, Nevada, Virginia, and Canal Zone.

[3] Based on Annual Reports received from participating State education agencies.

Table 52.—Full-time equivalent number of statistical services staff of State education agencies, by State, prior to title X and as of June 30, 1951 and 1962

State or Territory[1]	Prior to title X	As of June 30, 1961	As of June 30, 1962
Total	**269.06**	**589.45**	**674.97**
Alaska	7.00	15.00	15.00
Arkansas	0.50	3.50	3.50
California	45.69	56.86	55.40
Colorado	5.00	15.81	14.61
Connecticut	2.60	7.72	7.87
Florida	6.47	45.25	46.00
Georgia	0.00	19.58	18.35
Hawaii	3.50	14.00	22.00
Idaho	2.00	2.00	2.00
Illinois	23.80	21.00	42.50
Iowa	6.00	20.00	27.50
Kansas	1.00	8.62	8.59
Kentucky	3.00	19.00	15.90
Maine	0.00	8.17	10.00
Maryland	10.50	11.75	13.60
Massachusetts	6.00	16.57	20.20
Minnesota	7.42	6.95	11.45
Mississippi	2.33	11.50	10.05
Missouri	1.33	4.33	6.67
Montana	3.00	6.00	9.30
Nebraska	3.50	6.23	5.92
New Hampshire	2.35	5.22	5.22
New Jersey	11.00	13.58	16.75
New Mexico	0.50	12.00	14.00
New York	27.00	44.00	56.25
North Carolina	3.00	7.00	11.00
North Dakota	0.33	0.33	1.33
Ohio	0.90	5.00	5.00
Oklahoma	5.00	23.95	20.10
Oregon	1.80	6.20	7.12
Pennsylvania	6.00	10.19	11.33
Rhode Island	1.00	9.00	9.00
South Carolina	13.00	17.00	12.00
South Dakota	3.00	3.50	6.00
Tennessee	0.00	9.00	18.00
Texas	6.75	27.50	24.25
Utah	5.92	9.08	11.66
Vermont	1.27	3.40	3.10
Washington	7.00	8.00	15.00
West Virginia	0.00	1.00	7.00
Wisconsin	0.00	7.18	14.50
Wyoming	3.00	6.17	(2)
Guam	0.00	6.00	5.72
Puerto Rico	22.60	30.00	30.00
Virgin Islands	7.00	5.31	4.25

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[1] The following States did not participate financially: Alabama, Arizona, Delaware, District of Columbia, Indiana, Louisiana, Michigan, Nevada, Virginia, and the Canal Zone.

[2] Wyoming did not participate in fiscal year 1962.

Table 53.—Automatic data processing of statistical data by State education agencies, eligible under sec. 1009, title X, fiscal years 1961 and 1962

Part 1. Availability of automatic data processing equipment of State education agencies, fiscal years 1961 and 1962

	Number of States for fiscal year	
	1962	1961
1. Using only equipment owned or leased by State education agency	15	14
2. Using equipment owned or leased by State education agency and also using services of a State centralized automatic data processing unit or unit of other State agency	13	10
3. Using equipment owned or leased by State education agency and also using services of an automatic data processing service bureau	8	8
4. Using equipment owned or leased by State education agency using services of State centralized automatic data processing unit or unit of other State agency, and also using services of an automatic data processing service bureau	8	5
5. Total using equipment owned or leased by State education agency	**44**	**37**

	Number of States for fiscal year	
	1962	1961
6. Utilizing only services of State centralized automatic data processing unit or unit of other State agency	4	5
7. Utilizing services of a State centralized automatic data processing unit or unit of other State agency and also utilizing services of automatic data-processing service bureau	1	3
8. Total using automatic data processing equipment or services in processing statistical data	**49**	**45**
9. Not using automatic data processing equipment or services in processing statistical data	6	10
10. Total eligible State education agencies	**55**	**55**

Part 2. Areas of statistical services in which automatic data processing equipment was used by State education agencies, during fiscal years, 1961 and 1962

Area of statistical services	Number of States for fiscal year	
	1962	1961
Employed Personnel		
1. Certification	31	23
2. Teacher approval	15	14
3. Teacher employment studies	30	27
4. Retirement	7	10
5. Supply and demand studies	23	23
6. Salary studies	33	29
7. Teacher-load studies	23	17
8. Miscellaneous statistics	34	31
9. Preparation of personal directory	18	16
10. Other	8	6
11. Processing at least one item (above) relating to employed personnel on automatic data processing equipment	44	40
Pupil Personnel		
1. School census	19	15
2. Pupil enrollment and attendance	32	26
3. Pupil dropouts	16	8
4. Socio-economic characteristics of pupils	5	5
5. Census of pupils enrolled in special education programs	23	14
6. Pupil retardation and acceleration	9	7
7. Standardized test scoring	18	16
8. Standardized test score analysis	18	16
9. Other	3	5
10. Processing at least one item (above) relating to pupil personnel on automatic data processing equipment	44	37
School Finance		
1. State agency budget preparation	15	10
2. State aid distribution	23	22
3. Internal payroll and accounting	20	20
4. Cost analysis	14	15
5. Fee accounting	8	6
6. Recording expenditures and receipts of local school systems	30	26
7. Reconciliation of local receipts reported with State disbursements	12	11
8. Local finance studies	18	17
9. Other	3	3
10. Processing at least one item (above) relating to school finance on automatic data processing equipment	38	37

Area of statistical services	Number of States for fiscal year	
	1962	1961
Curriculum and Program Study		
1. School accreditation	6	6
2. Analysis of course offerings in terms of pupils enrolled	17	13
3. Study of high school graduates in number, courses completed, etc	18	11
4. Other	4	2
5. Processing at least one item (above) relating to curriculum and program study on automatic data processing equipment	23	22
School Facilities		
1. Annual records of school sites	12	11
2. Annual records of school buildings	18	15
3. Annual records on equipment	5	5
4. Analysis of classroom shortage	17	16
5. Other	5	3
6. Processing at least one item (above) relating to school facilities on automatic data processing equipment	27	21
Specialized Services		
1. School lunch reimbursement	18	15
2. School lunch commodity distribution	7	6
3. Miscellaneous data on food services	11	11
4. Pupil transportation records	18	15
5. Miscellaneous data on health services provided	3	5
6. Surplus property distribution	5	3
7. Vocational rehabilitation	16	16
8. Other	4	3
9. Processing at least one item (above) relating to specialized services on automatic data processing equipment	31	30
Research and Information Services		
1. Periodic statistical reports of State superintendent	36	30
2. Other	8	7
3. Processing at least one item (above) relating to research and information service on automatic data processing equipment	37	32

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Summary

Student Loans

Loans to increase opportunities for needy and qualified students to continue their education beyond high school were made to 151,068 student borrowers in fiscal year 1961, totaling $71 million. In fiscal year 1962, 186,465 students received loans totaling $89.1 million. This brought the total number of student accounts in the first 4 years of the program to nearly 363,500 and the total amount loaned to $219.7 million. The average loan for fiscal year 1961 was about $470; for fiscal 1962, $478.

Science, Mathematics, and Modern Foreign Language Instruction

Space and Equipment.—States were paid $29.6 million as of 1961, and $44.1 million as of 1962, for the purchase of equipment and materials and for minor remodeling of laboratories and classrooms used in the teaching of science, mathematics, and modern foreign languages. Of the 58,810 projects approved for fiscal year 1962, 72.3 percent were for projects in science, 9 percent for mathematics, and 18.7 percent for modern foreign languages. In the 4 years the program has been in operation, the Office of Education has paid the States a net total of $140.4 million.

Nonprofit Private Schools.—Loans to nonprofit private schools totaling $651,485 were approved in the fiscal year 1961, and loans totaling $671,727, in 1962.

Supervisory and Related Services.—Approximately $2.4 million in grants were paid to States for supervisory and related services and the administration of State plans during fiscal year 1961 and $2.8 million in fiscal year 1962.

Graduate Fellowships

Fifteen hundred National Defense graduate fellowships were awarded in fiscal year 1961; the same number was awarded in 1962. For the 4 years since the program began 5,500 fellowships have been approved, for which $59.1 million was obligated.

Guidance, Counseling, and Testing

State Programs.—As of June 30, 1961, $14.9 million was paid to States for approved programs to establish and maintain guidance, counseling, and testing services in secondary schools. As of June 30, 1962, $14.4 million was paid. For the 4-year period, a total of $49.4 million was expended.

In terms of full-time equivalents, States reported an overall increase of more than 100 percent in the number of counselors over the number employed at the time NDEA was enacted.

Counseling and Guidance Training Institutes.—Funds from fiscal year 1961 supported 17 regular-session and 76 short-term institutes enrolling 3,126 secondary school teachers and counselors. Fiscal year 1962 funds supported 21 regular-session and 66 short-term institutes with 2,567 enrollees. In the first 4 years of the program 11,524 counselors received training at regular session or short-term institutes. For fiscal year 1961, $6.5 million were allotted for the program; in 1962, $7,062,000.

Language Development

Language and Area Centers.—Federal funds allocated for these centers in fiscal year 1961 totaled $1,751,007; in fiscal year 1962, $2,080,000, bringing the 4-year total cost to $5,902,945. In addition to the 46 language centers already in operation under the program, a Slavic center received support in fiscal year 1961. In 1962, 5 Latin American centers were granted support for instruction in Spanish and Portuguese. Support was also extended to an additional Uralic-Altaic center, bringing the total to 53 centers at the end of fiscal year 1962.

Modern Foreign Language Fellowships.—Seven hundred and sixty-three fellows received awards for the 1961–62 academic year and 1,006 received awards for the 1962–63 academic year. The amount obligated for these awards in fiscal year 1961 was $2,803,199, and for 1962, $3,918,297. Approximately 80 percent of both fellows and funds were confined to the 7 languages designated by the U.S. Commissioner of Education: Arabic, Chinese, Hindi-Urdu, Japanese, Portuguese, Russian, and Spanish.

Research and Studies.—Forty-six projects in support of language research and studies were initiated in 1961; 34 were negotiated in fiscal year 1962. The cost of the program in 1962 was $2 million, which brought the total cost for the first 4 years to $10,420,752.

Language Institutes.—Seventy-five institutes, with 3,756 enrollees, were conducted during the summer of 1961 and academic year 1961–62. Eighty-five were scheduled for the summer of 1962 and academic year 1962–63, with 4,294 and 119 enrollees, respectively. By the end of fiscal year 1962, 10,320 teachers had received instruction in new methods of language instruction and had increased their language fluency at 218 language institutes conducted at colleges and universities in the United States and abroad.

New Educational Media

Research and Experimentation.—Thirty-six projects were approved for the 1961 fiscal year; 34 for the 1962 fiscal year. Obligations for the research program totaled $9.9 million. The purposes of these projects are to conduct, assist, and foster research and experimentation in the more effective utilization of television, radio, motion pictures, and related media for educational uses. During fiscal years 1961 and 1962, the major area of emphasis shifted from the medium of television to that of programed instruction and teaching machines.

Dissemination of Information.—Of the $4.2 million which have been obligated for dissemination activities since the beginning of the program, approximately $1.3 million were obligated during fiscal year 1961, and $2.2 million during fiscal year 1962.

Technical Education Programs

Funds amounting to $7,913,117 and $11,045,347 were paid in fiscal years 1961 and 1962, respectively, to 49 States, the District of Columbia, and to Puerto Rico under title VIII, for technical education programs. The total paid out in the 4-year period amounted to $27,672,676.

Improvement of Statistical Services

State Education Agencies.—Forty-five State education agencies requested and received a total of $1,299,806 in fiscal year 1961 and 47 received a total of $1,482,452 in 1962, to improve and expand their statistical services.

Survey of Federal Programs in Higher Education.—Results of the survey are now off the press (OE-50033). This was a major attempt to gather extensive data on the Federal involvement in higher education and to assess the future of Federal activity in this area.

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